1987-89 Undergraduate Programs

University of Illinois
at Urbana-Champaign

Information contained herein is for informational purposes only and is subject to change without notice. Individual departments and units should be contacted for further information. Courses, faculty assignments, prerequisites, graduation or completion requirements, standards, tuition and fees, and programs may be changed from time to time. Courses are not necessarily offered each semester or each year. The University retains the exclusive right to judge academic proficiency and may decline to award any degree, certificate, or other evidence of successful completion of a program, curriculum, or course of instruction based thereupon. While some academic programs are designed for the purpose of qualifying students for registration, certification, or licensure in a profession, successful completion of any such program in no way assures registration, certification, or licensure by an agency not the University of Illinois.

University of Illinois administrative offices at Urbana-Champaign are open daily from 8:00 a.m. to 12:00 noon and 1:00 to 5:00 p.m. Monday through Friday, but not Saturdays, Sundays, or all-campus holidays which are indicated in the University Calendar.

An information center, available to visitors to the campus, is located in the north entrance lobby of the Illini Union. The center is open from 8:00 a.m. to 8:00 p.m. daily, including Saturdays and Sundays when classes are in session.

Small group information sessions about the campus are available at the Campus Visitors Center in Levis Faculty Center, 919 West Illinois Street; visitors are welcome between 9:00 a.m. and 4:00 p.m. Monday through Friday, excluding campus holidays.

The policy of the University of Illinois is to comply fully with applicable federal and state nondiscrimination and equal opportunity laws, orders, and regulations. The University of Illinois will not discriminate in its programs and activities against any person because of race, color, religion, sex, national origin, ancestry, age, marital status, handicap, unfavorable discharge from the military, or status as a disabled veteran or veteran of the Vietnam era. This nondiscrimination policy applies to admissions, employment, and access to and treatment in University programs and activities.

For additional information on the equal opportunity and affirmative action policies of the University, please contact on the Urbana-Champaign campus: William A. Savage, Assistant Chancellor and Director of Affirmative Action, Swanlund Administration Building, 601 East John Street, Champaign, IL 61820 (217) 333-0574.

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How to Use This Catalog

This catalog provides general information about the University of Illinois at Urbana-Champaign (UIUC) and detailed information about the programs of study offered by eight undergraduate colleges, the School of Social Work, the Institute of Aviation, and the College of Veterinary Medicine. Separate catalogs are published for the Graduate College and the College of Law at Urbana-Champaign and for the University of Illinois at Chicago. They are available from addresses on the inside back cover.

This catalog has two major parts. The first part, General Information, provides information about admission, precollege programs, special opportunities, student services, student costs, financial aid, the grading system and other regulations, graduation requirements and honors, Reserve Officers' Training Corps, and the Council on Teacher Education. The second part, Colleges and Other Academic Units, has separate sections for each of the undergraduate colleges, the Institute of Aviation, and the College of Veterinary Medicine, which detail their curricula, special academic programs, specific requirements for graduation, honors programs, and other information.

Persons who are unfamiliar with the University may find it helpful to refer first to the Introduction for a general description of the Urbana-Champaign campus.

Publications that supplement this catalog, and that are available from the Office of Admissions and Records at the address on the inside back cover, are: semester and summer session *Timetables,* which list courses offered each term, class meeting times, registration instructions, and tuition and fee charges; the *Courses Catalog,* which lists courses offered and provides a brief description of their content, credit hours, and enrollment requirements; and the *Code on Campus Affairs and Regulations Applying to All Students,* which contains administrative, academic, and conduct regulations. This latter publication is available at 177 Administration Building and by request from the Office of Admissions and Records.

Additional information about the University is available by telephoning the campus — (217) 333-1000 — and asking the operator for the proper telephone extension.

The Illini Union

Introduction

The University of Illinois at Urbana-Champaign was founded in 1867 as a state-supported, land grant institution with a three-fold mission of teaching, research, and public service. During its history, the University has earned a reputation as an institution of international stature. It is recognized for the high quality of its academic programs and the outstanding facilities and resources it makes available to students and faculty. Scholars and educators rank it among a select group of the world's great universities.

THE CAMPUS

Located in the adjoining cities of Urbana-Champaign (pop. 100,000), approximately 130 miles south of Chicago, the University and its surrounding communities offer a cultural and recreational environment ideally suited to the work of a major research institution.

Close proximity by air, rail, bus, or car to Chicago and ready access to major cities on both coasts through daily flights to and from the University's Willard Airport make it possible to maintain the close contact with major cultural centers that are essential to the intellectual life of an international university.

The University is a residential campus of classrooms, laboratories, libraries, residence halls, and recreational and cultural facilities with 200 major buildings on the central campus of 705 acres. Nearby are the University's 1,493-acre Willard Airport, Robert Allerton Park, the campus's 1,768-acre nature and conference center, and 2,400 acres of agricultural land, as well as 3,700 acres of farmland elsewhere in Illinois which are used by the College of Agriculture as experimental fields.

Nearly every facility on campus is accessible to the physically disabled, and the University's programs and services for the disabled have served as a model worldwide.

COLLEGES AND SCHOOLS

Eight undergraduate colleges and one school offer 150 programs of study leading to a baccalaureate degree. They are the Colleges of Agriculture, Applied Life Studies, Commerce and Business Administration, Communications, Education, Engineering, Fine and Applied Arts, and Liberal Arts and Sciences, and the School of Social Work. A certificate program is offered by the Institute of Aviation. Postbaccalaureate students study in more than 100 fields through the Graduate College and in professional programs through the Colleges of Law, Medicine, and Veterinary Medicine. National surveys consistently rank the University of Illinois at Urbana-Champaign among the top ten institutions in many fields of study with several colleges and departments ranked among the top five.

STUDENT BODY

There are approximately 36,000 students and 10,800 faculty and staff members in the University community. Some 27,000 undergraduates (55 percent men, 45 percent women) typically from every state in the nation and some 100 foreign countries, enroll each year; 96 percent of the undergraduates are Illinois residents. Minority students comprise about 13 percent of the total enrollment.

Undergraduate education is strongly emphasized, and admissions are very competitive. The median ACT composite score of entering freshmen is 27, and more than 25 percent of these students ranked in the top 3 percent of their high school class. The majority of transfer students enter the University with a 4.0 grade-point average (A = 5.0).

Annually approximately 100 freshmen are selected to join the Campus Honors Program as Chancellor's Scholars. The program fosters close, collaborative relationships between top students and distinguished faculty through special honors sections, faculty mentors, and summer research opportunities.

Most undergraduate students receive a baccalaureate degree after four years, and many go on to advanced study in the humanities, the sciences, the social sciences, and various professional fields. Typically, 80 percent of graduates who apply to law school are accepted; 65 percent are accepted to medical school.

FACULTY

Scores of faculty are members of the American Academy of Arts and Sciences, the National Academy of Sciences, and the National Academy of Engineering. Seven scientists received the National Medal of Science while on the faculty. Professor Emeritus John Bardeen won the Nobel Prize in physics twice — the only person ever to do so. Twenty-six faculty members have received the Presidential Young Investigators Award, established by Congress to support research by faculty members near the beginning of their academic careers.

FACILITIES

The University's library is the third largest academic library in the nation with more than 7 million bound volumes and over 11 million total items. There are 38 departmental libraries across the campus, in addition to the main Library and the Undergraduate Library.

Two premier scientific supercomputing centers, the Center for Supercomputing Research and Development and the National Center for Supercomputing Applications, have established the University as a recognized world leader in the fields of supercomputing architecture, design, and applications. The centers are the natural extension of the University's pioneering role in the computer field. PLATO, which was developed at the University, is the largest computer-based instructional system in the world, and the $12.5 milion Project EXCEL, funded by IBM, has created innovative models of computer-based instruction for undergraduate education.

Planning and construction continues on the Arnold O. and Mabel M. Beckman Institute for Advanced Science and Technology. The campus received a $40 million gift from alumnus Arnold O. Beckman and a matching gift of $10 million from the State of Illinois to establish the interdisciplinary institute which will bring together researchers in the biological and physical sciences in quest of pioneering discoveries in human and artificial intelligence. The Beckman gift is believed to be the largest ever from an individual to a public university.

The campus is a major midwestern center for the arts. Krannert Center for the Performing Arts, designed by alumnus Max Abramovitz, architect of New York City's Lincoln Center, is a magnificent showcase for music, theatre, opera, and dance. Ellie McGrath, education editor of *Time* magazine described Krannert as "arguably the best performing arts facilities in the nation." The facility has four indoor theatres, an open air amphitheatre, and five major rehearsal rooms. It is a major performance outlet for students in professional training programs in the arts as well as an entertainment complex. More than 350 performances are presented there each year.

There are three museums: the Krannert Art Museum, second only to the Art Institute of Chicago in size and value of collections among public museums in Illinois; the World Heritage Museum, housing collections of artifacts from cities and civilizations from all parts of the world; and the Museum of Natural History, which has displays on early man, flowering and nonflowering fossil plants, stuffed animals, and over 400,000 research specimens.

The Illini Union is a common meeting place for students, faculty, staff, and visitors to eat, play, study, and relax. It contains cafeteria and dining facilities, guest rooms, art galleries, reading and television rooms, billiards and electronic game rooms, bowling lanes, ticket and check cashing counter, alumni offices, and a paperback book sales center.

The University's Intramural–Physical Education Building is one of the world's largest structures for college-university intramural sports and recreational activities.

The Assembly Hall holds the distinction of being the world's second largest edge-support dome. It has a permanent seating capacity of 16,000, and is used for Big Ten basketball games, touring companies, concerts, conventions, convocations, and other activities.

Memorial Stadium, with a seating capacity of 76,000, is home for the Fighting Illini football and track and field events.

Willard Airport services commercial, general, and private aviation, and houses the Institute of Aviation. Located six miles southwest of campus, the airport is also a center for research, education, and military aviation. The University of Illinois holds the only Federal Aviation Administration (FAA) Airman Examining (Pilot) Agency Certificate in the country, which permits it to issue pilot certificates and ratings to its graduates on behalf of the FAA.

COURSES AND CLASS SIZE

Over 4,000 courses are available although some may not be offered every semester. About 73 percent of all class sections have fewer than thirty students; 49 percent have fewer than twenty.

ACADEMIC CALENDAR

The campus has an academic calendar of two sixteen-week semesters and one eight-week summer session. A three-week program of intensive instruction called Intersession is held between the spring semester and the eight-week summer session. The fall semester begins in late August and ends in mid-December; the spring semester begins in mid-January and ends in mid-May. The summer session extends from early June to early August. Classes are taught on an 8:00 a.m. to 5:00 p.m. schedule; a few evening classes are conducted primarily for graduate students.

STUDENT ACTIVITIES

One of the distinct advantages of a large university is that students with varying interests can find many avenues from expression. At the Urbana-Champaign campus, there are some 750 registered student organizations.

Approximately 25 percent of the undergraduate student body are actively affiliated with the Greek system, the largest fraternity and sorority system in the nation with fifty fraternities and twenty-five sororities.

All three branches of the Armed Services have ROTC units on campus.

Students have the opportunity to participate in performances by eleven different choral groups, five bands plus the Marching Illini, three orchestras, five jazz bands, innumerable small ensembles, and even a Russian-style balalaika orchestra. Illinois Opera Theatre stages four full-length grand operas plus several one-act operas each year.

Athletics provide another avenue of enjoyment outside the classroom. The campus intramural program is the largest in the nation with three-fourths of all students participating.

The campus is a member of the Big Ten Intercollegiate Conference, and in recent years its athletic programs have achieved national stature in a number of men's and women's sports. The Fighting Illini, in blue and orange, sponsors eleven men's teams and eight women's teams. Men's intercollegiate sports include baseball, basketball, cross-country, fencing, football, golf, gymnastics, swimming/diving, tennis, track, and wrestling. The women's program includes basketball, cross-country, golf, gymnastics, swimming/diving, tennis, track, and volleyball.

CAMPUS VISITORS CENTER

Prospective students and parents are invited to visit the campus and participate in small group information sessions at the Campus Visitors Center. The center is open between 9:00 a.m. and 4:00 p.m. Monday through Friday, excluding campus holidays. Presentations are made by Admissions and Records staff, and arrangements can be made to meet with admissions counselors, and representatives from specific academic units and the offices of financial aid and housing. The Campus Visitors Center is located in the Levis Faculty Center, 919 West Illinois Street, one block west of Lincoln Avenue in Urbana.

Student-conducted tours of the campus are available when classes are in session and weather permits. Reservations are recommended and may be made by calling the Campus Visitors Center, (217) 333-0824.

Calendar

Spring Semester 1987

Jan. 21, Wed.-Jan. 22, Thurs., 5:00 p.m.	On-campus registration
Jan. 26, Mon., 7:00 a.m.	Instruction begins
Mar. 14, Sat., 1:00 p.m.-Mar. 22, Sun.	Spring vacation
Mar. 20, Fri.	Spring recess (all-campus holiday)
Mar. 23, Mon., 7:00 a.m.	Instruction resumes
May 13, Wed.	Instruction ends
May 14, Thurs.	Reading day
May 15, Fri.-May 22, Fri.	Final examinations
May 24, Sun.	Commencement

Intersession 1987

May 25, Mon.	Memorial Day (all-campus holiday)
May 26, Tues.	Instruction begins

Eight-Week Summer Session 1987

June 11, Thurs.-June 12, Fri., noon	On-campus registration
June 15, Mon., 7:00 a.m.	Instruction begins
July 3, Fri.	Independence Day (all-campus holiday)
July 13, Mon.	Beginning of second four-week term
Aug. 5, Wed.	Instruction ends
Aug. 6, Thurs.	Reading day
Aug. 7, Fri.-Aug. 8, Sat.	Final examinations

Fall Semester 1987

Aug. 24, Mon.-Aug. 25, Tues.	On-campus registration
Aug. 27, Thurs.	Instruction begins
Sept. 7, Mon.	Labor Day (all-campus holiday)
Nov. 25, Wed. (5:00 p.m.)-Nov. 29, Sun.	Thanksgiving vacation
Nov. 26, Thurs.-Nov. 27, Fri.	Thanksgiving (all-campus holidays)
Nov. 30, Mon.	Instruction resumes
Dec. 11, Fri.	Instruction ends
Dec. 12, Sat.	Reading day
Dec. 14, Mon.-Dec. 19, Sat.	Final examinations

Spring Semester 1988

Jan. 18, Mon.	Martin Luther King, Jr. Birthday (all-campus holiday)
Jan. 20, Wed.-Jan. 21, Thurs.	On-campus registration
Jan. 25, Mon.	Instruction begins
Mar. 26, Sat. (1:00 p.m.)-Apr. 3, Sun.	Spring vacation
Apr. 1, Fri.	Spring recess (all-campus holiday)
Apr. 4, Mon.	Instruction resumes
May 11, Wed.	Instruction ends
May 12, Thurs.	Reading day
May 13, Fri.-May 20, Fri.	Final examinations
May 22, Sun.	Commencement

Intersession 1988

May 23, Mon.	Instruction begins
May 30, Mon.	Memorial Day (all-campus holiday)

Eight-Week Summer Session 1988

June 9, Thurs.-June 10, Fri. (noon)	On-campus registration
June 13, Mon.	Instruction begins
July 4, Mon.	Independence Day (all-campus holiday)
July 11, Mon.	Beginning of second four-week session
Aug. 3, Wed.	Instruction ends
Aug. 4, Thurs.	Reading day
Aug. 5, Fri.-Aug. 6, Sat.	Final examinations

Fall Semester 1988

Aug. 22, Mon.-Aug. 23, Tues,. 5:00 p.m.	On-campus registration
Aug. 25, Thurs., 7:00 a.m.	Instruction begins
Sept. 5, Mon.	Labor Day (all-campus holiday)
Nov. 23, Wed., 5:00 p.m.-Nov. 27, Sun.	Thanksgiving vacation
Nov. 24, Thurs.-Nov. 25, Fri.	Thanksgiving (all-campus holidays)
Nov. 28, Mon., 7:00 a.m.	Instruction resumes
Dec. 9, Fri.	Instruction ends
Dec. 10, Sat.	Reading day
Dec. 12, Mon.-Dec. 17, Sat.	Final examinations

Spring Semester 1989

Jan. 16, Mon.	Martin Luther King, Jr. Birthday (all-campus holiday)
Jan. 18, Wed.-Jan. 19, Thurs., 5:00 p.m.	On-campus registration
Jan. 23, Mon., 7:00 a.m.	Instruction begins
Mar. 18, Sat., 1:00 p.m.-Mar. 26, Sun.	Spring vacation
Mar. 24, Fri.	Spring recess (all-campus holiday)
Mar. 27, Mon., 7:00 a.m.	Instruction resumes
May 10, Wed.	Instruction ends
May 11, Thurs.	Reading day
May 12, Fri.-May 19, Fri.	Final examinations
May 21, Sun.	Commencement

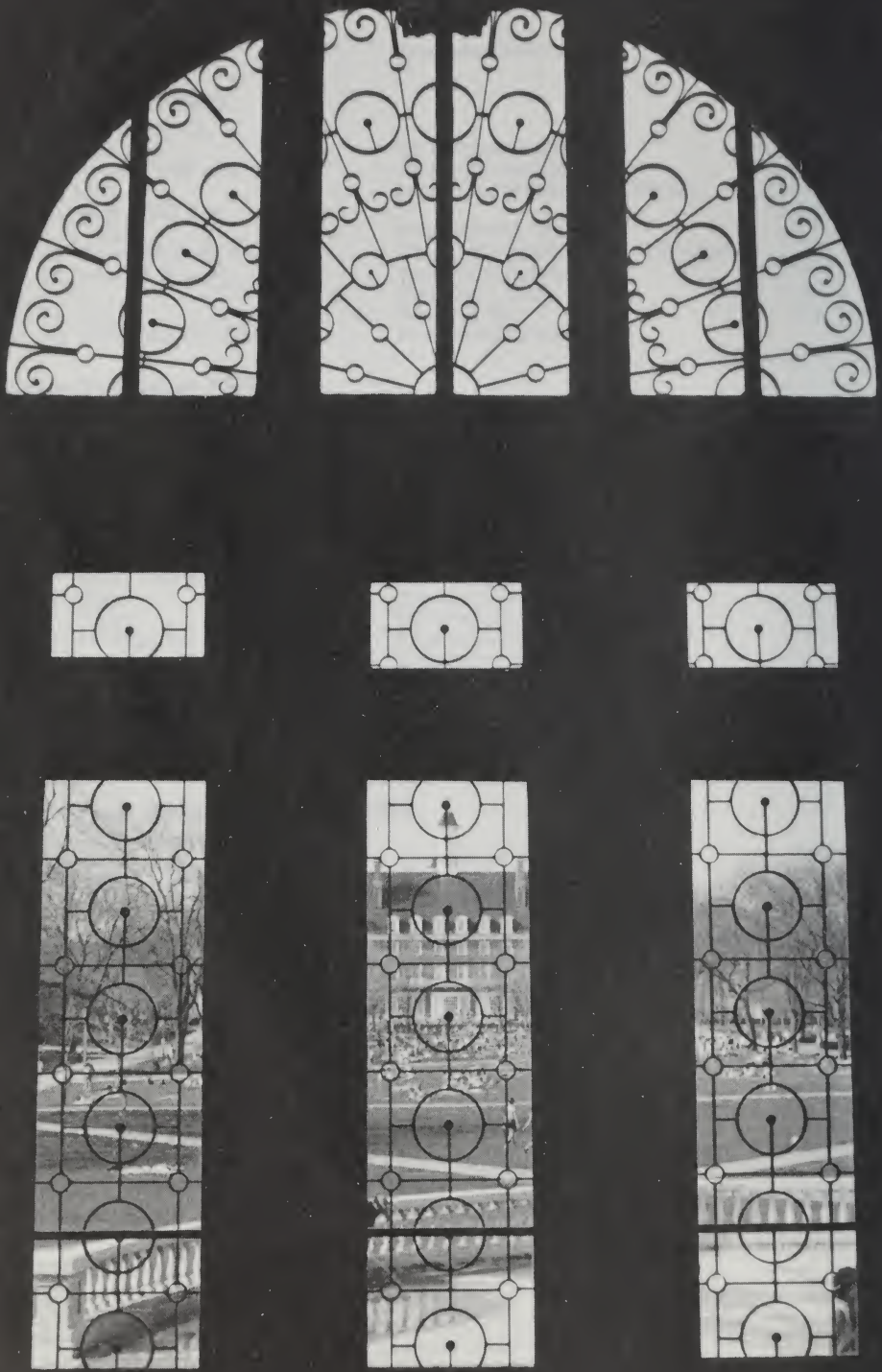
Intersession 1989

May 22, Mon.	Instruction begins
May 29, Mon.	Memorial Day (all-campus holiday)

Eight-Week Summer Session 1989

June 8, Thurs.-June 9, Fri., 12:00 noon	On-campus registration
June 12, Mon., 7:00 a.m.	Instruction begins
July 4, Tues.	Independence Day (all-campus holiday)
July 10, Mon.	Beginning of second four-week session
Aug. 2, Wed.	Instruction ends
Aug. 3, Thurs.	Reading day
Aug. 4, Fri.-Aug. 5, Sat.	Final examinations

GENERAL INFORMATION



Admission

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Since the information in this two-year catalog is subject to change, prospective applicants should contact the Office of Admissions and Records at the address on the inside back cover for admission requirements and applications for a specific term.

Admission counselors in 177 Administration Building are available for consultation on weekdays, excluding campus holidays, from 8:30 a.m. to 12:00 noon and 1:00 p.m. to 4:30 p.m. Appointments are recommended and can be made by calling (217) 333-0302. The Campus Visitor's Center offers campus tours and informational sessions for prospective students and their families. (See page 4.)

UNDERGRADUATE PROGRAMS OF STUDY

More than 150 programs of study—called curricula, fields of concentration, options, or majors—are available to undergraduate students as indicated in the Admissions Chart that follows this section. Detailed information about these programs appears in the college sections of this catalog.

In addition to degree programs offered in the college, preprofessional education is offered in the College of Liberal Arts and Sciences for advertising, dentistry, journalism, law, medical dietetics, medical laboratory sciences, medical record administration, medicine, nursing, occupational therapy, pharmacy, physical therapy, social work, and veterinary medicine.

Five of the colleges—Agriculture, Applied Life Studies, Education, Liberal Arts and Sciences, and Fine and Applied Arts—offer teacher education curricula.

The Urbana-Champaign campus is organized primarily to assist the full-time student, one who is enrolled for at least 12 hours of credit each semester. Most students are required to register for at least 15 or 16 semester hours (four or five courses) each semester, but a reduced load may be authorized by their college because of special circumstances.

Enrollment as a nondegree student is limited in the spring and fall semesters. University employees and residents of the community who wish to enroll in courses that are offered only

Quadrangle with the Illini Union in the background.

at the University are given priority for nondegree enrollment. There is no restriction on the number of nondegree students who may attend the eight-week summer session.

Since admission to each college and curriculum is carefully monitored to assure that no more students are enrolled than the faculty and facilities can support, applicants may apply for admission to only one of the eight undergraduate colleges, the School of Social Work, or the Institute of Aviation, and may designate only one curriculum choice.

The applicant's choice of college and curriculum is particularly important because admission requirements differ by college and curriculum, and, once admitted, course requirements for students differ by college and curriculum.

Beginning freshmen who are undecided about an educational major in a particular college may want to apply for the core curriculum in the College of Agriculture, the unassigned curriculum in the College of Commerce and Business Administration, the general education curriculum in the College of Education, or the general curriculum in the College of Liberal Arts and Sciences. Students in these curricula do not have to declare a degree program until the end of their sophomore year.

Because of enrollment restrictions, beginning freshmen are required to remain in the college to which they have been admitted for at least two semesters of full-time study in the prescribed freshman program to which admitted. Transfer students are obligated to remain in the college, and possibly the curriculum to which admitted, for at least the first semester of enrollment. Students on campus who wish to transfer to another college must meet the accepting college's admission requirements and compete for any available spaces. Due to enrollment controls, transfer to some programs is very competitive. For example, the College of Commerce and Business Administration and the College of Engineering will consider only transfer students with 60 hours of prerequisite course work. For unusual and extenuating circumstances, college offices will consider individual requests to transfer from one college to another after one semester in residence.

ADMISSIONS CHART: COLLEGES AND CURRICULA

(A listing of undergraduate curricula available to beginning freshmen and transfer students)

Specific high school subjects, indicated as Patterns I, II, III, IV, V, and VI in the Admissions Chart and described on pages 16 and 17, are required of all beginning freshman applicants, transfer applicants with fewer than 30 semester hours of transferable baccalaureate credit by their desired date of entry, and all applicants to the College of Fine and Applied Arts.

The minimum transfer grade-point average is 3.25 (A = 5.0) for all curricula, but higher grade-point averages are required for admission and/or continuation in certain curricula as indicated in the Admissions Chart or the college sections of this catalog. Applicants for teacher education curricula should refer to page 87.

General requirements for admission are found on page 15.

College of Agriculture

Applicants for admission may be required to submit a statement of professional interest in the curriculum for which admission is desired.

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN I (See page 17)

Agricultural communications (options in advertising, news-editorial, and broadcast journalism)

Agricultural industries

Agricultural science (a four-year program for students desiring preparation for graduate study or professional work in animal, plant, or soil science; agricultural economics; agricultural law; or rural sociology; and a five-year program for students enrolled in the combined agricultural science and agricultural engineering program) Minimum grade-point averages for transfer students are found on page 98.

Core curriculum — For beginning freshman applicants who have not decided on a specific curriculum. Transfer students with 45 or more semester hours at time of enrollment must indicate one of the following majors:

Agricultural economics (options in farm management, agricultural marketing, general agricultural economics, and rural sociology)
Agricultural mechanization (industrial and equipment operations options)
Agronomy (options in agronomy, crops, soils, and crop protection)

Animal science (general animal science, companion animal biology, and industrial options)
Dairy science
General agriculture
Horticulture

Food industry

Food science

Forestry (options in forest science and wood products industries)

Vocational home economics education

Human resources and family studies (options in human development and family ecology, consumer economics, foods in business, foods and nutrition, general home economics, dietetics, institution management, textiles and apparel, and marketing of textiles and apparel). Students may also combine advertising, journalism, and business with human resources and family studies. Refer to pages 106 and 125.

Interior design

Ornamental horticulture

Restaurant management

Soil science

Agricultural education

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN IV (See page 17)

Combined agricultural science–agricultural engineering (five-year program with the first three years taken in the College of Agriculture) Refer to pages 108, 111, and 112.

College of Applied Life Studies

ALL CURRICULA REQUIRE HIGH SCHOOL SUBJECT PATTERN I (See page 17)

Health and safety studies (options in community health education and health planning and administration)

Leisure studies (options in outdoor recreation planning and management, program management, and therapeutic recreation)

Physical education (options in bioscience; curriculum and instruction—for certification to teach in public schools; personalized area of concentration; and social science of sport). Refer to page 87 for teacher education requirements.

Institute of Aviation (Certificate Program)

A personal interview and special aptitude test are required for all curricula. A Federal Aviation Administration physical examination is required before the first solo flight.

ALL CURRICULA REQUIRE HIGH SCHOOL SUBJECT PATTERN I (See page 17)

Aircraft systems

Avionics (aviation electronics) All students must have completed one year of community college electronics course work before transferring to the institute for a year of aviation specialty courses. Contact the Institute of Aviation, University of Illinois–Willard Airport, Savoy, IL 61874, before applying.

Professional pilot

Combined professional pilot/aircraft systems

College of Commerce and Business Administration

ALL CURRICULA REQUIRE HIGH SCHOOL SUBJECT PATTERN VI (See page 17)

Curriculum unassigned (For students who have not selected a degree program. Selection should be made by the end of the sophomore year.)

The first two years of work in all fields in commerce and business administration are almost the same. Students later concentrate in one of the following curricula:

Accountancy

Business administration

Economics

Finance

College of Communications

Freshmen are not admitted to this college. Applicants must have completed 60 semester hours of transferable credit by the desired term of entry and are required to submit letters of career intent, accounts of media experience, and other evidence of interest in communications. The minimum admission grade-point average is 4.0 (A = 5.0), but applicants with a lower average will be considered if they demonstrate strong career motivation and aptitude and if spaces are available. Refer to page 154.

Advertising
Journalism
Broadcast journalism
News-editorial
Media Studies

College of Education

Teacher education curricula also are offered in the Colleges of Agriculture, Applied Life Studies, Fine and Applied Arts, and Liberal Arts and Sciences.

The minimum transfer grade-point average is 3.5 (A = 5.0) for the College of Education. Refer to pages 87 to 91 for teacher education requirements.

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN VI (See page 17)

Early childhood education (preparation for teaching kindergarten through the ninth grade with a special focus on kindergarten and the primary grades)

Education general (for beginning freshmen and sophomores who are uncommitted to a specific teaching program or who have chosen a teaching field that requires junior standing)

Elementary education

CURRICULA OPEN ONLY TO STUDENTS WITH JUNIOR STANDING (60 SEMESTER HOURS OR MORE) AT TIME OF ENROLLMENT

Business education (areas of specialization in accounting-bookkeeping, data processing, economics, marketing and distributive education, and secretarial-office practice)

Curriculum preparatory to high school teaching (with specialties in teaching English, general science, life science, mathematics, physical science, and social studies)

Curriculum for preparation of teachers of moderately and severely handicapped persons (designed to prepare classroom teachers for the instruction of moderately and severely handicapped persons) Satisfactory experience in working with the handicapped is a prerequisite for admission to the teaching of moderately and severely handicapped curriculum; admission usually is made for the fall semester only; refer to page 173.

Technical education specialties (preparation to teach a specialty at one or more school levels — secondary, technical institute, junior college, or industrial training program — with such specialties as electronics, machine tools, avionics, machine tool drafting, architectural drafting, and construction, as well as industrial arts) It is suggested that applicants obtain technical preparation and experience in their area of specialization prior to admission and consult with an adviser in the department.

College of Engineering

It is highly recommended that the two years of science required for admission be chemistry and physics. Students entering curricula without satisfactory proficiency in chemistry are required to take Chemistry 100 and receive no credit toward graduation. Also, the initial physics sequence assumes familiarity with such ideas as the vector nature of forces, simple calorimetry, and simple geometrical optics. Transfer applicants must have sixty semester hours of transferable credit by the term of enrollment, including required freshman and sophomore sequences in calculus, calculus-based physics, and chemistry.

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN IV (See page 17)

Aeronautical and astronautical engineering

Agricultural engineering (options in electric power and processing, farm structures, food engineering, power and machinery, and soil and water) A combined five-year agricultural engineering-agricultural science program also is offered. Refer to pages 108, 111, and 112.

Ceramic engineering

Civil engineering (areas of specialization: structures and structural materials, soil mechanics and foundation engineering, environmental engineering, construction engineering and management, hydraulic and hydrosystems engineering, photogrammetric and geodetic engineering, transportation systems, and engineering systems)

Computer engineering

Computer science

Electrical engineering

Engineering mechanics (for students interested in research and development in engineering)

Engineering physics (including preparation for employment in industrial physics and for graduate studies in physics and allied technical fields) Minimum transfer average is 3.5 (A = 5.0). Refer to page 198.

General engineering (fields of concentration in engineering administration, engineering marketing, environmental quality, computer science, and mining and geological engineering)

Industrial engineering

Mechanical engineering

Metallurgical engineering

Nuclear engineering

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN VI (See page 17)

Combined five-year engineering–liberal arts and sciences program Freshmen apply to the College of Engineering. Applicants must satisfy College of Engineering and College of Liberal Arts and Sciences admission requirements. Refer to pages 178 to 179 and 238.

College of Fine and Applied Arts

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN VI

Architectural studies This curriculum requires three and one-half years of mathematics as part of Pattern VI. Architecture transfer applicants must have completed one year of college calculus and analytic geometry and one year of western civilization.

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN I (See page 17)

Art and design Minimum grade-point averages for admission and continuation in the art and design curricula are found on page 214.

General curriculum All freshmen desiring art and design curricula enter the general curriculum except those entering the history of art curriculum. Freshmen who complete one year in the general curriculum and transfer students with 30 or more semester hours must select one of the following degree curricula. Applicants to either the graphic design or the industrial design programs are required to satisfy a portfolio review.

Art education
Crafts (ceramic or metal emphasis)
Graphic design
Industrial design
Painting
Sculpture

Dance Qualifying audition required. Refer to pages 18 and 221.

Landscape architecture

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN II (See page 17)

History of art

Music All music curricula require an audition and/or interview. (Refer to pages 18 and 224.)
History of music
Instrumental music
Music composition
Voice

Music education for prospective teachers (Refer to pages 18 and 224 regarding auditions, and pages 87 to 91 regarding teacher education requirements.)

Theatre Preadmission auditions or interviews required.
Freshman program (Students are enrolled in this program for one year before they may qualify for one of the following theatre options.) Refer to pages 18 and 229.
Applied theatre
Professional studio in acting
Professional studio in design and technology

Urban and regional planning Freshmen applicants must submit a statement of professional interest. Transfer students must have completed 30 semester hours of acceptable undergraduate college work.

College of Liberal Arts and Sciences

Because there are a number of differences between the minimum requirements for admission and the strong recommendations, students should refer to the section on LAS admission requirements on page 236.

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN VI (See page 17)

Sciences and letters curriculum The sciences and letters curriculum comprises all of the traditional programs in the liberal arts and sciences. The curriculum requires study in depth in one field of concentration, as well as substantial breadth in a number of areas. Fields of concentration to which students may apply for admission are:

Actuarial science
Anthropology
Asian studies
Astronomy
Chemistry
Classics (including Greek, Latin, and classical civilization)
Comparative literature
Economics
English
Finance
French
Geography
Geology
Germanic languages and literature (including Scandinavian Studies)
History
History of art
Humanities (options in American civilization, cinema studies, history and philosophy of science, medieval civilization, Renaissance studies)
Italian
Latin American studies
Life sciences (options in anatomical sciences; bioengineering; biophysics; ecology and ethology; entomology; general biology; honors biology; microbiology; physiology; plant biology)
Linguistics
Mathematics
Mathematics and computer science
Music
Philosophy
Physics
Political science
Portuguese
Psychology
Religious studies
Rhetoric
Russian
Russian and East European studies
Sociology
Spanish
Speech and hearing science
Speech communication
Statistics

SPECIALIZED CURRICULA

Speech and hearing science program for the degree of Bachelor of Science.

Teacher education (secondary) in fields of biology, chemistry, computer science, earth science, English, French, German, Latin, mathematics, physics, Russian, social studies, Spanish, and speech. Refer to page 87 for teacher education requirements.

Combined sciences and letters–education program for mathematics teachers Minimum transfer grade-point average is 3.75 with 4.0 (A = 5.0) in mathematics courses.

OTHER PROGRAMS

General The general curriculum is not a degree program, but rather a program and advising center for freshman and sophomore students who desire a liberal arts education but who have not decided upon a specific field.

Preprofessional education Preprofessional admission requirements for the Colleges of Communications, Law, Veterinary Medicine, Associated Health Professions, Dentistry, Medicine, and Nursing may be completed in the College of Liberal Arts and Sciences. The college does not offer separate preprofessional degree programs. Suggested programs for preprofessional study are:

Professional Program	LAS Suggested Program
Dentistry Medical laboratory sciences Medical record administration Nutrition and medical dietetics Physical therapy	Sciences and letters curriculum with life sciences as concentration
Medicine Law	Sciences and letters curriculum with any concentration
Veterinary medicine	Sciences and letters curriculum with a concentration within biological or physical sciences
Communications	General curriculum, prejournalism
Nursing Occupational therapy Pharmacy Social work	General curriculum

CURRICULA REQUIRING HIGH SCHOOL SUBJECT PATTERN VI (Admission to the following curricula requires three and one-half years of mathematics; see page 17)

Biochemistry Refer to page 284.

Chemical engineering Refer to page 285.

Chemistry Minimum transfer grade-point average is 3.5 (A = 5.0).

Geology Refer to page 287.

Physics Refer to page 287.

Combined engineering–liberal arts and sciences five-year program See pages 178 to 179 and 238.

School of Social Work

Beginning freshmen are not admitted. Since a student must have 45 semester hours to be eligible to enter the School of Social Work, the beginning freshman applicant is advised to enroll in the general curriculum of the College of Liberal Arts and Sciences for the first 45 semester hours and then attempt to transfer.

Students may apply for admission after completion of 30 semester hours of college work, but they must have completed 45 semester hours of transferable credit by the desired term of entry.

A grade-point average of at least 3.75 (A = 5.0) and evidence of interest in a professional career in social work are required. Applicants with less than a 3.75 grade-point average will be considered on an individual basis if they demonstrate strong career motivation and aptitude. See page 315.

Social work

COLLEGE OF LAW

The College of Law admits beginning students only in August. Minimum admission requirements are a bachelor's degree from an accredited four-year college or university, a minimum grade-point average of 3.5 (A = 5.0) in all course work taken, and a satisfactory score on the Law School Admission Test. Other subjective criteria also may be used.

The College of Law has no specific prelegal course requirements for admission, but a basic course in accounting is strongly recommended. Prelegal education for students interested in the profession of law is on pages 14 and 236.

Additional information and admission applications are available from the College of Law, University of Illinois at Urbana-Champaign, 209 Law Building, 504 East Pennsylvania Avenue, Champaign, IL 61820.

GENERAL REQUIREMENTS FOR ADMISSION

Applicants seeking exceptions to these general requirements should pursue special admissions as outlined on page 19.

Age

Applicants must be at least fifteen years of age by the date of desired enrollment.

High School Graduation

To be approved for admission, applicants must be graduates of a regionally accredited high school, or a school in Illinois recognized by the state superintendent of education, or a school elsewhere with a rating equivalent to full recognition. Graduates of other secondary schools and nongraduates of secondary schools may be admitted under the provisions for use of the General Educational Development Tests.

General Educational Development Tests (GED). The achievement of satisfactory scores on the General Educational Development Test is acceptable in lieu of graduation from an accredited high school. This test alone will not fulfill all of the college preparatory subject requirements.

A standard score of 35 on each of the five tests and an average standard score of 45 on all five tests are the minimum scores needed to provide the following high school credit: 9 semesters of English, 8 semesters of social studies, 7 semesters of general science, and 6 semesters of miscellaneous. This is a total of 24 semesters (12 units) of college preparatory subject matter and a total of 30 semesters (15 units) of high school credit. To be eligible to take these tests, applicants must be eighteen years of age or have been out of school for at least one year. Additional information is available upon request from the Office of Admissions and Records.

To be used in lieu of a high school graduation, transcripts showing GED scores should be sent by the testing center to the Office of Admissions and Records.

High School Credits

Applicants for admission to all curricula must present a total of at least 15 units of acceptable secondary school work. Graduates of schools organized as three-year senior high schools, including grades ten, eleven, and twelve, must have at least 12 units in the senior high school. Credit earned prior to grade nine is acceptable if the transcript of credit, certified by the senior high school, shows the credit as high school credit from grade eight. A *unit* course of study

in the secondary school is a course covering an academic year and including not less than the equivalent of 120 sixty-minute hours of classroom work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to 1 hour of prepared classroom work. Fractional units of the value of less than one-half are not accepted. Not less than 1 unit of work is accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology. The required 15 units must include the following:

1. Three units of *English* are required. Work offered to meet this requirement should be composed of studies in language, composition, and literature, and require practice in expository writing in all such work.
2. One unit each in *algebra and plane geometry* is required. General mathematics, college preparatory mathematics, or other courses in mathematics may be accepted in lieu of algebra and plane geometry, or more advanced courses, in cases where the content of the course is essentially the same as that ordinarily included in the required course, as determined by the Department of Mathematics at the University of Illinois at Urbana-Champaign. When such courses are not equivalent to the prescribed algebra and plane geometry or more advanced courses, they will be accepted as elective credit.
3. The *college preparatory subjects* prescribed in the pattern specified for the curriculum which the applicant desires to enter are presented in Table 1. Acceptable college preparatory subjects are those defined in paragraphs 1 and 2 of this section and foreign language, sciences, and social studies as described for the patterns.
4. Since the number of college preparatory units for all curricula is less than the 15 required for admission, each applicant must present *elective units* selected from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet the standards for accrediting. Courses in such fields as agriculture, art, commerce, general science, home economics, industrial arts, and music are accepted as elective units for admission.

College Preparatory Subject Requirements

Admission to each college and curriculum requires that applicants complete a specific number of units in certain college preparatory high school subjects (see High School Credits on page 15.

The subjects required differ depending upon the college and curriculum selected by the applicant. There are six different patterns, or combinations of subjects, designated by Roman numerals I, II, III, IV, V, and VI in Table 1. Only patterns I, II, IV, and VI are currently used. Applicants must have the courses under the "Required" column or their application will be denied. The majority of successful applicants exceed the minimum course requirements and have strong college preparatory backgrounds.

For transfer applicants who will have completed 30 or more semester hours of transferable college credit by the date of enrollment at the Urbana-Champaign campus, the subject pattern requirements are waived, except for admission to the College of Fine and Applied Arts. The subject patterns required for admission to each college and curriculum are listed in the Admissions Chart beginning on page 10.

A specific subject requirement may be waived under extenuating circumstances for otherwise well-qualified applicants. An applicant or high school seeking a waiver of the subject pattern requirement or a review of rank-in-class because of the applicant's high admission test scores and exceptionally strong competition in college preparatory classwork should state the rationale for requesting such action using the Background Statement section of the application.

Additional Admission Requirements

A few colleges and curricula have admission requirements in addition to the regular academic standards. Instructions on how to fulfill these additional requirements are forwarded to students soon after their applications are received. *Students should be aware that additional time is required to process applications for admission to curricula with additional admission requirements. Students denied on the basis of additional admission requirements may find all admission spaces taken in alternative programs at the time of notification. Thus, such applicants should apply early and may also wish to apply to other institutions.* The following chart indicates the colleges and curricula with additional admission requirements.

Table 1: College Preparatory Subject Requirement Patterns in Units

(See Admissions Chart on pages 10 to 15.)

Patterns:	I		II		III		IV		V		VI	
Subject	Required	Recommended	Required	Recommended	Required	Recommended	Required	Recommended	Required	Recommended	Required	Recommended
English	3	4	3	4	3	4	3	4	3	4	3 or 3½[4]	4
Algebra	1	2	1	2	2	2	2	2	2	2	2	2
Geometry	1	1	1	1	1	1	1	1	1	1	1	1
Trigonometry		½		½	½	½	½	½		½	0 or ½[4]	½
Advanced mathematics		½		½		1½[1]		1½[1]		½		1½[1]
One foreign language[2]		2	2	4	2	4		2	2	4	2	4
Science[2]					2		2		2		2	3
(Not general science)												
Biology		1		1		1		1		1		
Chemistry		1		1		1		1		1		
Physics						1		1		1		
Social studies[2]		2		2		2		2	2	2	1	2
Total College Preparatory	12[3]		12		12½		12½		12		12½	

[1] Algebra completed in grade 8 will allow this recommended pattern.
[2] The foreign language requirement is fulfilled by 2 units in any one foreign language. The subjects included in the science field are astronomy, biology (or botany and zoology), chemistry, geology, and physics. General science will not be used as a unit of required science, but will be counted as an elective. The subjects included in the social studies field are civics, commercial or economic geography, economics, history, psychology, and sociology.
[3] Two units of agriculture or home economics courses may be used to satisfy the 12-unit total for applicants to the College of Agriculture.
[4] A combined total of 6½ units of English and mathematics is required with at least 3 units in each: the architectural studies curriculum and the specialized curricula in biochemistry, chemical engineering, chemistry, geology, and physics require 3½ units of mathematics, including trigonometry.

Colleges and Curricula	*Special Requirements*
College of Agriculture	Professional interest statement
Institute of Aviation	Personal interview and aptitude test
College of Communications	Additional background information
College of Education	
Teaching of moderately and severely handicapped children	Additional background information
College of Fine and Applied Arts	
Dance	Qualifying audition
Graphic design	Portfolio review
Industrial design	Portfolio review
Music	Qualifying audition
Theatre	Qualifying audition or interview
Urban and regional planning	Professional interest statement
School of Social Work	Additional background information

English Competency

Minimum requirements for competence in English apply to all University students. Applicants for admission may complete minimum requirements for competence in English by certifying that the following requirements have been fulfilled in a country where English is the primary language and in a school where English is the primary language of instruction:

Undergraduate college applicants. Graduation with credit for 3 units, or the equivalent, of English from a secondary school; or successful completion of a minimum of two academic years of full-time study at the secondary school or collegiate level immediately prior to the proposed date of enrollment in the University.

Graduate and professional college applicants. Completion of at least two academic years of full-time study within five years of the proposed date of enrollment in the University.

For applicants who do not meet the above requirements, evidence can be provided by achieving a satisfactory score on a test of competence in English. The test(s) to be used and the minimum score(s) shall be subject to approval by the University Committee on Admissions with the advice of the University's Technical Committee on Testing. This requirement may be waived upon agreement by the director of admissions and records and the dean of the college concerned, if evidence of competence in English presented by the applicant clearly justifies such action.

Physical Examination

New students may be required to present evidence of satisfactory physical and mental health to the director of health services. Admitted applicants will receive a Student Health Report form which they may use to report pertinent medical data to the director of the campus Health Service. If students will be under the age of eighteen at the time they enroll, their parents must sign a medical authorization for them to receive care at the McKinley Health Center. Upon the advice of a health service physician, admission, readmission, or registration of a student may be denied until the student is cleared by the McKinley Health Center.

Students transferring from the University of Illinois at Chicago should request that their health report forms be transferred by their health center to McKinley Health Center.

Military personnel may have these forms completed by a base physician.

TUBERCULOSIS CONTROL

New and readmitted students are encouraged to present evidence of freedom from tuberculosis at the McKinley Health Center. All new international students are required to complete a tuberculosis screening at the health center before completing registration.

Evidence of freedom from tuberculosis is established by presentation of a University of Illinois or public health agency certificate dated within the previous twelve months or by undergoing the application of a tuberculin skin test at the McKinley Health Center during on-campus registration with a negative interpretation by the health service 48 to 72 hours after application. Persons who have a positive reading to this test should have a chest x-ray at the health center. Persons with a history of positive reaction to the tuberculosis skin test will not be skin-tested but will be offered a chest x-ray. (If a chest x-ray was done within the previous

three months, no new chest x-ray may be made.) Additionally, if the skin test reading is positive, the student will be asked to schedule an appointment to review his or her health history.

SPECIAL ADMISSIONS POLICY

An applicant who is not otherwise eligible, and for whom evidence clearly establishes (1) qualifications to do satisfactory work and (2) extenuating circumstances judged worthy of special consideration, may have his or her application reviewed and may be admitted with the approval of the director of admissions and records and the dean of the college concerned.

For experimental and special programs which provide academic support services, space may be reserved for applicants of different qualifications, not to exceed ten percent of the entering freshman class of the previous fall term on the campus concerned.

Appeals for special consideration after denial of admission are generally unsuccessful since admission spaces usually have been filled by that time.

ADMISSION OR READMISSION DENIED BECAUSE OF MISCONDUCT

The University reserves the right to deny admission or readmission to any person because of previous misconduct which may substantially affect the interest of the University, or to admit or readmit such a person on an appropriate disciplinary status. The admission or readmission of such a person will not be approved or denied until his or her case has been heard by the appropriate disciplinary committee. This applies to a person not now enrolled in the University who might apply for admission or readmission, or to a person who has preenrolled whether or not he or she has paid a deposit. A favorable action of the appropriate disciplinary committee does not abrogate the right of any dean or director to deny admission or readmission on the basis of scholarship.

ADMISSION OF BEGINNING FRESHMEN

Deadline dates for filing complete applications for admission or readmission are given in the following and other application calendars. These deadline dates apply as long as space remains available in the desired curriculum. Applicants claiming exceptional circumstances which justify special consideration, including reasonable accommodation of applicants' religious beliefs, observances, and practices, should appeal in writing to the director of admissions and records for an extension of filing deadline dates. Only rarely, however, are spaces available by these late dates, and applicants are encouraged to apply during the periods indicated in the application calendars.

A beginning freshman applicant is one who applies for admission while attending high school, regardless of the amount of college credit earned, or one who has graduated from high school but completed fewer than 12 semester hours or 18 quarter hours of transferable college classroom credit by the desired term of entry. High school midyear graduates planning to attend a collegiate institution before admission to the University of Illinois at Urbana-Champaign for the fall term should apply as beginning freshmen during their last fall term in high school. Such applicants are admitted on the basis of high school credentials and test results and may complete more than 12 semester hours of transferable college classroom credit at another institution before enrollment at Urbana-Champaign.

Application Calendar: Freshman Applicants

Filing Period		*Notification Time*
Spring Freshmen Applicants:		
Sept. 25-Nov. 1	All applicants for spring admission	December
Nov. 1-Jan. 1	Applications taken on space-available basis; contact the Office of Admissions and Records for openings.	Approximately four weeks after filing

Fall Freshmen Applicants:		
Oct. 1-Nov. 1	Very well qualified applicants will receive early notification if they apply by November 1. "Very well qualified" is defined in the application materials.	November
Oct. 1-Jan. 1	It is expected that applications for all colleges will be considered during this period. Applicants will be informed of the status of their application beginning in late December. The status categories are: a. Admit — Competitively eligible applicants will be notified on an ongoing basis beginning in December. b. Delayed decision — Applicants whose applications must be held for competitive consideration, depending upon space available, will be notified of final decision by March 15. c. Denial — Denied applicants will be notified as soon as a decision is made in order to allow them to pursue alternatives.	December-March
November 15	Priority Filing Date — Applications completed by this date may have the advantage when spaces are limited and applicants with equal qualifications are being reviewed.	
Jan.-July	Applications taken on space-available basis; contact the Office of Admissions and Records for openings.	Admission decisions made monthly

If admission is still possible, applications accepted for admission within a month of registration may require late registration and a $15 late registration fee (amount subject to change).

Requirements

Admission of beginning freshmen applicants will be based on the completion of specific high school subjects and on a combination of high school percentile rank and admission test score. Those approved for admission must have at least a one-in-two (50 percent) chance of achieving a 3.0 (C) average for one or more terms of the first academic year on the campus.

If the number of qualified applicants to a college or curriculum falls short of the admission quota, those whose chances of achieving a 3.0 average are between a one-in-four and a one-in-two chance may be admitted, provided the campus has made provision to help such applicants improve their chances for success. If the number of qualified applicants to a college or curriculum exceeds the admission quota, those best qualified will be admitted. "Best qualified" will be determined by a combination of high school percentile rank and admission test score. In determining the admission of those applicants near the boundary of the competitive applicant pool, additional criteria may be considered. These additional factors are described in the Background Statement section below.

In addition to all other requirements for admission, nonresidents should rank in the top quarter of their high school class. If the admission quota exceeds the number of qualified applicants, nonresidents may be admitted on the same basis as residents; if the number of qualified applicants exceeds the admission quota, preference may be given to residents of Illinois.

To assist prospective applicants in assessing their opportunities for admission, academic guidelines based on previous years' admissions decisions are published annually in the application materials. They are guidelines only. Final admission standards depend upon the number and qualifications of applicants to each program.

ADMISSIONS TEST INFORMATION

Beginning freshman applicants, regardless of rank in class or length of time out of school, are required to submit an admission test score, either the assessment administered by the American College Testing (ACT) program, or the Scholastic Aptitude Test (SAT) of the College Board. Applicants will not complete their admission requirements until scores are received by the Office of Admissions and Records in the form of an official score report sent directly from the testing agency concerned. Complete information concerning the test, the dates of test administration, and the location of testing centers may be obtained from high school counselors or by writing the appropriate testing agency: American College Testing, Box 168, Iowa City, IA 52240 or College Board, 45 Columbus Avenue, New York, NY 10023-6917.

The highest ACT composite score or SAT total score (from a single test session) that is on file will be used when the admission decision is made. Prospective applicants are urged to complete an admission test in the spring of their junior year in high school.

APPLICATION DOCUMENTS

Beginning freshmen applicants should submit admission applications through their high school. The documents needed to complete an application are listed on page 28.

BACKGROUND STATEMENT

Objective academic qualifications will be the major factors considered in admissions decisions. The Office of Admissions and Records attempts to identify those applicants whose class rank and admission test scores or transfer grade-point averages may underpredict their likelihood of success, or those whose admission would add diversity to the educational and social environment of the campus.

Applicants who believe their academic credentials do not adequately reflect their potential may complete the Background Statement on the application. Unless applicants are close to meeting the guidelines published for the college to which they are applying, the Background Statement may have little impact on their admission decision. Students who attend a highly selective high school for which a profile may not be on file with the Office of Admissions and Records are urged to have their counselor attach their school profile to their transcript and to request a review through the Background Statement. Among the factors which the Office of Admissions and Records may consider in making decisions are whether the applicant (1) has a physical handicap; (2) had a health problem which significantly affected, for a period of time, an otherwise exceptionally good academic record; (3) is from an economically disadvantaged environment; (4) is of an age group or has a cultural or ethnic background that will add diversity to this campus; (5) has completed the most rigorous selection of courses available in the high school; or, (6) has performed at a level which has brought state or national recognition in a specific field of endeavor.

ADMISSION OF TRANSFER APPLICANTS

A transfer applicant is one who has (1) completed a minimum of 12 semester or 18 quarter hours of transferable college classroom credit by the desired term of entry, and (2) who does not meet the definition of a beginning freshman or a readmission applicant.

Policy

Admission of transfer applicants will be based on a combination of hours and content of transferable credit and transfer grade-point average. The minimum transfer grade-point average is 3.25 (C = 3.0); some curricula require a higher grade-point average. (See the Admissions Chart, pages 10 to 15.) To assist prospective applicants in assessing their opportunities for admission, transfer grade-point average guidelines are published annually in the application materials. These are guidelines only. The final standards will depend upon the number and qualifications of the applicants to each program. If the number of qualified applicants to a college or curriculum exceeds the admission quota, those best qualified will be approved. "Best qualified" will be determined by a combination of hours and content of transferable credit and transfer grade-point average. In determining the admission of those applicants near the boundary of the competitive applicant pool, additional criteria may be considered. These additional factors are described in the Background Statement section on page 21. Applicants who have had a significant break in their pursuit of an education and can demonstrate an improved academic performance, or applicants for whom relocation from the Champaign-Urbana community would present a major hardship, may wish to address these factors in the Background Statement section of the application for admission.

Eligibility of transfer applicants with fewer than 30 semester hours of graded transferable classroom credit is based upon (a) high school percentile rank and ACT or SAT test scores and (b) grade-point average and content of transferable courses attempted.

If the number of qualified applicants exceeds the admission quota, priority may be given to residents of Illinois. In addition, when applications from Illinois residents with similar qualifications are being considered, priority may be given to those applicants whose curriculum choice

is not available at the institutions from which they apply. Lower-division transfer applicants may be restricted when campus space is limited.

Grade-point averages are calculated on the basis of all transferable courses attempted for which grades are assigned and for which grade-point values can be determined. When a course is repeated, the grade-point average is computed using both grades and all hours for the course. Incomplete grades are accepted as defined by the initiating institution. Grades in other course work completed, such as technical courses similar in content and level to courses taught at the University of Illinois at Urbana-Champaign, may be used in the evaluation for admission upon request of the college to which a student seeks admission.

Since the grade-point average used to establish admission qualifications is based on all transferable course work attempted, applicants from institutions with "forgiveness" grading policies (those which delete grades for course work attempted) may find their opportunities for admission limited to special admission. If they are admitted and register, a transfer grade-point average may not be recorded on their University of Illinois at Urbana-Champaign record since the grading policies of the transfer institutions and this campus are not comparable.

Application Documents

The documents needed to complete an application are listed on pages 28 and 29.

Application Calendar: Transfer Applicants

Filing Period		*Notification Time*
Spring Transfer Applicants:		
Sept. 25-Nov. 1	All applicants for spring	December
Nov. 1-Jan. 1	Applications taken on space-available basis; contact the Office of Admissions and Records for openings.	Approximately four weeks after filing
Fall Transfer Applicants:		
Feb. 1-Mar. 15	Applications for all colleges will be considered during this period.	Mid-April
Mar. 15-Aug. 1	Applications taken on space-available basis; contact the Office of Admissions and Records for openings.	Admission decisions made monthly

STUDENTS DROPPED OR PLACED ON PROBATION FOR DISCIPLINARY REASONS

Petitions for admission of transfer students who are on disciplinary probation or who have been dropped from a previous collegiate institution for disciplinary reasons must be approved by the appropriate subcommittee of the Senate Committee on Student Discipline. (See Admission or Readmission Denied Because of Misconduct on page 19.)

Acceptance of Credit from Other Collegiate Institutions

Credit may be accepted for advance standing from another accredited university or college. Accepted credit will be based on our evaluation of the primary transcript of record of each institution attended. Duplicate credit will be counted in the grade-point average but excluded from hours earned. A student who has passed a course at the University of Illinois at Urbana-Champaign may not be given credit for the same course taken elsewhere.

POLICY FOR THE ACCEPTANCE OF TRADITIONAL TRANSFER CREDIT

1. Admission of transfer students to the University of Illinois is based only on the transfer course work which is similar in nature, content, and level to that offered by the University of Illinois. Such courses are normally referred to as transfer or college-parallel work. Other course work completed, such as technical courses similar in content and level to courses taught at the University, will be used in evaluation for admission only upon the request of the dean of the college to which the student seeks admission.
2. Transfer credit, as defined above, will be accepted at full value for admission purposes on transfer to the University of Illinois at Urbana-Champaign if earned in:
   a. colleges and universities which offer degree programs that are comparable to programs offered by the University of Illinois and (i) are members of or hold Candidate for

Accreditation status from the North Central Association of Colleges and Schools or other regional accrediting association, or (ii) are accredited by another accrediting agency which is a member of the Council on Postsecondary Accreditation (COPA).

b. Illinois public community colleges which are neither members of nor holders of Candidate for Accreditation from the North Central Association of Colleges and Schools, but which are approved and recognized by the Illinois Community College Board (ICCB) for a period of time not to exceed five years from the date on which the college registers its first class after achieving ICCB recognition.

3. Certain colleges and universities do not meet the specifications in 2 above, but have been assigned a status by the University Committee on Admissions which permits credit to be accepted on a provisional basis for admissions purposes on transfer to the University of Illinois at Urbana-Champaign. Transfer credit, as defined in 1 above, from such colleges and universities is accepted only on a deferred basis to be validated by satisfactory completion of additional work in residence. Validation through satisfactory work in residence may be accomplished by earning at the University of Illinois at Urbana-Champaign, or other fully accredited[1] college or university, at least a 3.0 (A = 5.0) grade-point average (higher if prescribed by the curriculum the student wishes to enter) in the first 12 to 30 semester (18 to 45 quarter) hours completed following transfer.
4. Credit, as specified in 1 above, transferred from an approved[1] community or junior college is limited only by the provision that the student must earn at least 60 semester or 90 quarter hours required for the degree at the University or at any other approved[1] four-year college or university after attaining junior standing, except that the student must meet the residence requirements that apply to all students for a degree from the University of Illinois at Urbana-Champaign. When a school or college within the University requires three years of preprofessional college credit for admission, at least the last 30 semester or 45 quarter hours must be taken in an approved[1] four-year collegiate institution.
5. In all cases, the precise amount of transfer credit which is applicable toward a particular degree will be determined by the University college and department concerned.

POLICY FOR THE ACCEPTANCE OF NONTRADITIONAL TRANSFER CREDIT

Acceptance of credit awarded on bases other than collegiate classroom experiences will be considered for transfer admissions purposes as follows:

1. *Test credit for admission as transfer credit.* Students presenting test credit awarded elsewhere, or test scores for admission or transfer credit purposes, will have that credit evaluated against cut-off scores established for those examinations on the UIUC campus. Official score reports should be submitted to the Office of Admissions and Records along with the application for admission to the University. Students presenting test credit for which (A) no UIUC campus policy exists, or (B) campus cut-off scores indicate no credit will be awarded, may still be granted transfer credit if the student
   a. is transferring at least 12 graded classroom semester hours of acceptable college-level graded classroom course work from the institution or single campus in a multicampus institution which awarded the credit by examination, and
   b. has successfully completed advanced classroom course work at the institution awarding the test credit in a course that is acceptable under UIUC transfer credit policies *and* which can be considered as a sequential continuation of the material covered in the test.

   After admission, students not awarded credit via this policy may attempt UIUC departmental proficiency examinations to receive credit in those areas in which they claim competence.
2. *Credit for military training.* The completion of military service in the U.S. Armed Forces, including basic or recruit training of six months or more, is accepted for advanced standing credit of 4 semester hours of basic military science on presentation of evidence of honorable discharge or transfer to the reserve component. Candidates for graduation who are still in military service are entitled to the same credit. Credit in military science may also be granted for other training completed in the service that is acceptable as the equivalent of ROTC courses at the University of Illinois at Urbana-Champaign. Such credit may be used for admissions purposes.
3. *Credit for education in the armed forces.* The U.S. Armed Forces Institute (USAFI) was an

[1] Colleges and universities meeting one or more of the specifications as listed in 2.

educational program which existed prior to May, 1974. The University considers for advanced standing credit those USAFI courses of college level for which the student has passed the appropriate USAFI end-of-course test or examination. Marine Corps Institute courses also will be considered on the same basis. The University may consider for advanced standing credit work completed in the Air Force, Army, Coast Guard, Marine Corps, and Navy specialized and technical schools. Criteria to determine acceptability include:

a. the specific degree requirements of the program of application,
b. similarity to courses at the campus of application, and
c. recommendation of the American Council on Education in the *Guide to the Evaluation of Educational Experience in the Armed Services.*

All criteria are subject to the recommendations of the college to which the student seeks admission and the department which teaches similar course work.

Credit earned in the College Training Programs of the Air Force, Army, Marine Corps, and Navy, which functioned during World War II, is accepted on the same basis as other credits from the colleges and universities where such credits were completed.

4. *Credit earned in academic courses sponsored by noncollegiate organizations, such as business, industry, and labor, not recognized by the April, 1977, Board of Trustees Policy.* Credit earned in such courses is not accepted. Such credit may be evaluated for potential advanced standing in a specific degree program after admission and registration; and this credit shall be subject to validation by proficiency examination or successful completion of advanced course work. Hours of this type of credit may be reduced from that shown by the originating agency. Criteria to determine acceptability for advanced standing include:
   a. the specific degree requirements of the program of enrollment,
   b. similarity to courses on this campus, and
   c. recommendations of the American Council on Education in *A Guide to Educational Programs in Noncollegiate Organizations.*

   All criteria are subject to the recommendations of the appropriate college and department that offers similar courses.
5. *Credit for experiential learning.* Experiential learning credits are not accepted for transfer admissions purposes. A student who believes himself or herself to be knowledgeable in a specific course may be granted credit through established proficiency procedures by the college of enrollment and department offering similar courses after admission and registration.

University of Illinois at Chicago Transfers

Undergraduate transfer students between the University of Illinois at Chicago and the Urbana-Champaign campus may be admitted to undergraduate programs on the opposite campus for which spaces are available for transfers from other colleges and universities, provided they meet the requirements of the program on the opposite campus for admission of on-campus transfers. Generally, admission opportunities are better in all curricula if applicants have junior standing (60 semester hours or 90 quarter hours). To be assured consideration as an intercampus transfer, students currently enrolled at the Chicago campus should apply for transfer consideration for the spring term between September 25 and November 1, and for the summer or fall terms between February 1 and March 15. Intercampus transfers do not pay the $25 application fee, but they must submit all application documents required of transfer applicants from other institutions.

Applicants are encouraged to go to the Chicago Office of Admissions and Records where copies of official credentials will be enclosed with their application and where current enrollment can be verified so that the application fee can be waived.

READMISSION

A readmission applicant is one who has previously registered on the campus as an undergraduate degree candidate and (a) earned credit but not a degree or (b) withdrew prior to earning credit and has not subsequently attended any other collegiate institution from which transfer credit is acceptable for admission.

Applications for readmission are usually accepted until near registration time. Transcripts must be sent directly from all institutions attended since the last term attended on this campus. Readmission to the same academic program will be approved for applicants whose records

are not encumbered and who (a) left the campus in good or probationary academic standing, (b) left any other campus subsequently attended in good academic and disciplinary standing, and (c) apply on or before November 1 for spring and March 15 for fall. Applicants must submit a letter of petition if they (a) left on drop status, (b) left on probation and are seeking readmission to a different academic program, or (c) were placed on "must petition" status by their college.

Policy

The following policy statements apply to readmission applicants:

— Applicants who desire readmission to a college other than the college in which they were previously enrolled may be readmitted only with the approval of the colleges concerned.
— Clearance by the McKinley health service is required for the readmission of former students who are encumbered for medical reasons.
— Clearance by the Business Affairs Office is required for the readmission of former students who are in debt to the University.

Application Documents

For information regarding application documents see page 28.

OTHER CATEGORIES OF ADMISSION

Second Bachelor's Degree Applicants

Second bachelor's degree applicants must meet the same requirements for admission as transfer applicants for the first degree. In addition, they are required to submit a petition indicating the reasons for their choice of program and campus, which must be approved by the director of admissions and records and the dean of the college concerned. Where space in a college or curriculum is inadequate, priority will be given to applicants seeking their first degree.

Nondegree Applicants

Nondegree admission and enrollment are restricted to participants in special programs and to those with nondegree educational objectives which cannot be met at another institution. Permanent residents of the Champaign-Urbana area are given priority for nondegree admission.

Nondegree applicants must choose one of the two campus enrollment options:

Summer session attendance only — Summer session only does not allow enrollment for the fall or spring term; application for admission is necessary to be considered for the academic-year enrollment pattern.

Academic year — Fall and spring semesters with summers optional.

Applicants holding a bachelor's degree who desire to take any 300-level course for graduate credit or any 400-level course must apply for graduate nondegree status, regardless of the level of other courses in which they desire to enroll. Graduate applicants should complete the "Combined Application for Admission or Readmission to the Graduate College and Application for Graduate Appointment."

Prospective undergraduate nondegree applicants should specifically request the Undergraduate Nondegree Admission Application Folder.

Applicants for the academic year with no prior credit at the University of Illinois at Urbana-Champaign must submit a transcript showing their highest level of academic achievement.

Applicants who have earned prior credit at the University of Illinois at Urbana-Champaign must submit a transcript showing course work completed since last enrollment at this campus, if any.

Nondegree students are subject to the following restrictions:

— Nondegree undergraduate students are assessed tuition at the upper-division rate.
— Course enrollment requires the approval of the department offering the course and the college of enrollment at the beginning of each semester.
— The college has the privilege of terminating a continuing nondegree student's enrollment before the student's registration for any term.

— Enrollment is limited to part-time status (less than 12 credit hours of course work in any semester).
— Nondegree students are ineligible for advance enrollment and registration by mail.
— Registration for the fall or spring term is not permitted until the fourth day of classes. The late registration fine will be waived for undergraduate nondegree students registering the fourth and fifth days of classes.
— Registration after the fifth day of classes requires the written approval of the dean of the college of enrollment.
— The same grading system is applicable to both degree and nondegree students. Credit earned on nondegree status will not be applicable to a degree except by subsequent admission to degree status.
— Undergraduates admitted for *summer session only* will not be permitted to register for 400-level courses or for graduate credit in 300-level courses. Students who wish to obtain graduate credit for courses taken on nondegree status must apply through the Graduate College.
— To be considered for degree-status enrollment, nondegree-status students must reapply for admission.
— Nondegree students admitted to a college for *summer to continue in the fall* have the option of registering for summer and continuing in the fall, or registering initially for fall.

SUMMER SESSION

The Urbana-Champaign campus conducts an eight-week summer session offering undergraduate courses for both degree and nondegree candidates.

Continuing Students

Undergraduate students who completed the immediately preceding spring semester at Urbana-Champaign and who are eligible to continue in the same college need not apply for admission to the summer session. Registration materials for the summer session are produced automatically for them.

Undergraduate students enrolled at Urbana-Champaign who were dropped for academic reasons at the end of the spring semester and who desire to continue in the following *summer session only* as nondegree candidates need not apply for admission to the summer session. They need to be released by their former college to the dean of the summer session who must approve their enrollment. Students wishing reinstatement to a degree program for the following fall semester must petition the college of desired enrollment. No application is necessary.

Students dropped for academic reasons at the end of the spring semester who seek reinstatement to the same or a different college for the following summer session need not apply. They need to petition the dean of the college of desired enrollment for reinstatement. If reinstated, successful completion of the summer session will allow continuation in the fall semester.

Undergraduate students whose last enrollment at Urbana-Champaign was the fall semester preceding the summer session or earlier must reapply for admission.

Candidates for Degrees

Freshman, transfer, or readmission applicants who wish to be admitted to the summer session and to continue as degree candidates in the fall semester must meet the same admission requirements as students applying for the fall semester. Such applicants should indicate on the application form that they are applying for admission in June to continue in the fall. Detailed admission requirements and application procedures for undergraduates are contained in each application packet.

Applicants for *summer to continue in the fall* should be aware that fall-term admission spaces have been filled in most academic programs long in advance of the *summer session only* application deadline. Information on programs open for admission can be obtained from the Office of Admissions and Records.

Nondegree Students

This section deals only with admission to the eight-week summer term as a nondegree student.

Approval of admission or readmission as a nondegree student to the summer session only does not allow enrollment in the fall or spring. Students who were admitted to the summer session only as nondegree students and who later wish to enter one of the colleges of the University as degree or nondegree students must apply for admission in the usual manner and satisfy requirements in effect at the time of application. Persons admitted as nondegree undergraduate students to the summer session only are not assigned to any college or curriculum.

Undergraduate nondegree applicants for admission to the summer session only may be approved by the director of admissions and records or by the Summer Session Office under one of the following conditions:

— High school graduates who qualify for admission under minimum rank–test score combination requirements, but who were not admitted under competitive rank–test score combination requirements in effect for the fall semester, may be admitted as nondegree students for the summer session only.

These minimum rank–test score requirements (known as campus minimums) are available from the Office of Admissions and Records the September preceding the summer term for which admission is sought.

— Former University of Illinois at Urbana-Champaign students who have not graduated from the University may be admitted as nondegree candidates if approved by the director of admissions and records through release from their former college. Students on drop or probationary status must petition the Summer Session Office for admission as nondegree candidates. If approved, they will be admitted on probation for that one summer session only.

— Undergraduate students enrolled in other institutions may enroll in the summer session as nondegree candidates if they are eligible to return to the collegiate institution last attended.

— Other persons, eighteen years of age or over, who have never attended a collegiate institution but who give evidence that they possess the requisite background and ability to pursue profitably courses for which they are qualified, may enroll in the summer session as nondegree candidates.

Students who have been approved for admission in the fall semester will be authorized to begin in the immediately preceding summer session if they notify the Office of Admissions and Records of their intent to enroll in the summer session.

APPLICATION DATE

All applicants for admission as nondegree candidates to the summer session only may submit an application on or after March 1.

APPLICATION DOCUMENTS

All nondegree candidate applicants must submit:

— A completed admission application form. This form is available from and should be returned with the required supporting credentials to the Office of Admissions and Records.

— A $25 check or money order, payable to the University of Illinois, in payment of the nonrefundable application fee. (See page 54.)

— A list of the specific course work desired.

CREDENTIALS REQUIRED OF CERTAIN APPLICANTS

High school graduates (see first category under nondegree admission requirements on page 27) may be required to submit an official high school transcript received from the high school showing rank in graduating class, and an official report of the admission test score (ACT or SAT) sent directly to the Office of Admissions and Records from the testing agency concerned.

Teachers may be requested to submit a statement attesting to their employment.

Students enrolled at other collegiate institutions may be requested to submit a statement of eligibility to return to the institution concerned.

INTERSESSION

Intersession, a three-week program of intensive instruction in certain credit courses, is conducted between the spring semester and the eight-week summer session. Admission requirements,

application procedures, and a listing of Intersession courses are given in the *Summer Session Timetable.*

Persons eligible to register for Intersession courses are:
— Students registered in the immediately preceding spring semester.
— New students who have been admitted to the current summer session.
— Students eligible to register in the current summer session.
— Students who have successfully completed Intersession in the previous year.

Additional information and Intersession applications are available from the Office of Admissions and Records at the address on the inside back cover.

CORRESPONDENCE COURSES

Correspondence courses are open to applicants who can meet University entrance requirements and who are in good standing at the last school attended, and to persons eighteen years of age or over whose applications are approved by the head of Guided Individual Study. Applications from students who have been dropped from the University of Illinois or any other collegiate institution will be considered only upon the recommendation of the authorities of the campus or institution from which the student was dropped. For further information, write to Guided Individual Study, University of Illinois at Urbana-Champaign, 104 Illini Hall, 725 South Wright Street, Champaign, IL 61820.

LISTENERS OR VISITORS

Students enrolled at the Urbana-Champaign campus who desire to attend a class as listeners or visitors must obtain the written permission of the instructor of the class and the approval of the dean of their college. Persons who have never been registered students at the Urbana-Champaign campus must obtain the required approval from the dean of the college in which the course is offered. Former students not currently registered must obtain approval of the dean of the college in which they were last registered. Former students are not permitted to attend classes as visitors while on dropped status.
— Visitors are not permitted in laboratory, military, physical education (other than theory), or studio classes.
— Persons registered for a full program of courses (12 semester hours or 3 units) may visit other courses without additional charges.
— Persons not registered or registered for less than a full program are charged a $15 visitor's fee for each course attended.
— The visitor's fee is waived for persons sixty-five years of age or older.
— Students holding scholarships, tuition waivers, or staff appointments generally may audit University courses without charge.

For additional information, contact the Office of Admissions and Records.

APPLICATION DOCUMENTS

All credentials presented for admission or readmission become the permanent property of the University and are not subsequently released to the student or to another individual or institution. Credentials are not held for reconsideration of admission to subsequent terms.

All Applicants

Applicants for admission must submit:
— A completed admission application form. Admission application forms are available from the Office of Admissions and Records at the address on the inside back cover.
— A $25 ($35 for international students) check or money order (amount subject to change), payable to the University of Illinois, in payment of the nonrefundable application processing fee. The University is not responsible for cash sent through the mail. Students readmitted as degree candidates and direct transfer applicants from the University of Illinois at Chicago are exempt from payment of this fee. Refer to Application Fee and the exemptions on pages 54 and 55.

In addition, applicants must submit, or have submitted, all the credentials listed below for their appropriate category of admission.

Freshman Applicants

Freshman applicants should submit applications through their high schools. All freshmen (see definition on page 19) must submit:

— A completed admission application; and

— An official high school transcript sent directly to the Office of Admissions and Records from the high school showing the following:

Course work completed;

The date of the applicant's graduation;

The applicant's numerical rank in and size of his or her graduating class. Since it is the policy of the University to accept for admission the academically best qualified of applicants competing for limited spaces, the University needs an objective measure of academic qualification which is comparable to measures used by other high schools. Descriptive statements are generally not comparable from school to school and probably will work to the applicant's disadvantage unless accompanied by a numerical class rank. Therefore, *high school personnel are urged to provide a numerical class rank or substitute ranking.* Students from three-year senior high schools should request that certification of work taken in the ninth grade be included on or with the transcript. (See page 15.) Eighth-grade work for high school credit also should be included; and

— An official report of their admission test score (ACT or SAT) sent directly to the Office of Admissions and Records from the testing agency. (See Admissions Test Information on page 20.)

Freshman applicants who have completed some college-level course work should ask that a transcript of that work be sent directly from the collegiate institution attended before enrollment.

Transfer Applicants

All transfer students (see definition on page 21) must submit:

— A completed admission application; and

— An official high school transcript received directly from the high school of graduation; and

— Official transcript(s) of all college work attempted sent directly to the Office of Admissions and Records from the institution(s) attended.

Transfer students with less than 30 semester hours of graded transferable classroom credit at the time of submission of the application must submit ACT or SAT test scores sent directly from the testing company and rank in high school class sent directly to the Office of Admissions and Records from the high school.

Readmission Applicants

All readmission students (see definition on page 24) must submit:

— A completed admission application; and

— An official transcript sent directly to the Office of Admissions and Records from each collegiate institution at which course work was attempted since last attendance at the Urbana-Champaign campus, if applicable.

ADMISSION OF FOREIGN STUDENTS

The Office of Admissions and Records is authorized to decide which students shall be classified as *foreign* according to the following definition: A person who is a citizen or permanent resident alien of a country or political area other than the United States and has a residence outside the United States to which he or she expects to return and either is, or proposes to be, a temporary alien in the United States for educational purposes is classified as a foreign student. For admission purposes, refugees-parolees and conditional entrants are classified as foreign and shall meet all requirements imposed upon foreign students except for the certification of financial resources.

Admission Requirements

Admission is competitive, and preference is given to applicants who are judged to have the best potential for academic success at the University of Illinois at Urbana-Champaign. Minimum requirements for admission are:

— Satisfaction of University minimum requirements in terms of age, high school graduation, high school units, and health; and the minimum requirements in terms of high school subjects prescribed for admission to a particular college and curriculum. (See General Requirements for Admission on page 15.)
— Satisfaction of the requirement for admission to any curriculum for which an additional requirement is indicated — such as an interview, aptitude test, or audition. (See page 16.)
— Satisfaction of the University requirement for English competency. (See English Competency Requirement below.)
— Adequate financial resources. (See Financial Verification Requirement on page 30.)

ENGLISH COMPETENCY REQUIREMENT

Evidence of English proficiency is required of students who request consideration for admission. This evidence is provided by a satisfactory score on the Test of English as a Foreign Language (TOEFL). Applicants are exempt from this test if they have fulfilled one of the following requirements in a country where English is the primary language and in a school where English is the primary language of instruction:

Undergraduate college applicants. Graduation with credit for 3 units, or the equivalent, of English from a secondary school; or successful completion of a minimum of two academic years of full-time study at the secondary school or collegiate level immediately prior to the proposed date of enrollment in the University.

Graduate and professional college applicants. Completion of at least two academic years of full-time study within five years of the proposed date of enrollment in the University.

The Test of English as a Foreign Language (TOEFL) is administered several times each year at many locations throughout the world. To make arrangements to take the TOEFL, write directly to the TOEFL Application Office, Box 899-R, Princeton, NJ 08541, U.S.A., or contact the nearest U.S. embassy, consulate, or U.S. Information Service office. Applicants who have already taken the TOEFL should request the TOEFL office to send their scores to the Office of Admissions and Records immediately. For admission purposes, TOEFL scores are valid for only two years prior to the proposed term of entry. If the TOEFL score is acceptable but indicates the need for further English study, a placement test will be required upon arrival at the University. On the basis of the placement test scores, applicants may be required to enroll in noncredit English courses and to take a reduced academic load.

In cases where TOEFL testing dates are not available prior to the desired term of entry, the University will arrange for substitution of the test given by the English Language Institute (ELI), Testing and Certification Division of the University of Michigan. Complete instructions to arrange for the ELI examination will be provided by the Office of Admissions and Records to each applicant for whom it is required. Final admission status is determined after the test results have been received.

The minimum cut-off score on the TOEFL is 520, and 84 on the ELI. The English requirement for graduation is explained on page 78.

FINANCIAL VERIFICATION REQUIREMENT

In order to determine eligibility for a Certificate of Visa Eligibility (Form I-20 or IAP-66), it is necessary for foreign applicants to submit complete and accurate information regarding their source of financial support. This information is required in compliance with regulations of the U.S. Immigration and Naturalization Service. Current information and certification also are required of foreign applicants transferring from institutions within the United States. Financial resources must be documented for the entire length of time required to earn a degree. Expenses for the 1986-87 academic year were estimated at $12,490, excluding summer session tuition and fees. These figures are subject to change without notice and are expected to increase yearly. Current estimated expenses may be obtained by writing to the Office of Admissions and Records.

Prospective students who cannot document the availability of sufficient resources will be denied admission.

University financial aid funds are extremely limited and are available only to applicants in specific exchange programs. Individual requests for financial aid cannot be considered.

Application Dates

Undergraduate applicants are urged to submit admission applications and supporting documents (TOEFL, transcripts, and financial certification) approximately one year prior to the desired term of entry. Competition is extremely keen, and late applicants jeopardize their opportunity for admission. To have the best chance for admission, summer and fall applicants should submit applications and all supporting credentials no later than November 15 of the preceding year. Fall and summer applicants may compete for a limited number of spaces if their applications and supporting documents are received by February 15. Applicants for spring are urged to submit complete applications one year in advance; the absolute deadline for spring application is November 1 immediately preceding the spring semester. *Complete* applications will be considered as they are received until all spaces have been filled. Admission decisions will be announced in writing to the applicant as soon as they are available.

Additional information and application materials are available from the Office of Admissions and Records at the address on the inside back cover.

Application Documents

All foreign applicants must submit:

— An Application for Undergraduate Admission for Applicants from Other Countries.

— A $35 (U.S.) nonrefundable application fee (amount subject to change) in the form of a check or money order payable to the University of Illinois. The check must indicate that the bank has an affiliate bank in the United States. (See page 54.)

— Official records for at least the last four years of secondary school study and/or any postsecondary or university-level work completed or attempted.

All records must list subjects taken, grades earned, or examination results (including those passed or failed in each subject); and all diplomas and certificates awarded. *Official* translations must be attached to these records if they are in a language other than English. All credentials must be certified by an officer of the educational institution attended or by the U.S. embassy or consulate. Applicants attending U.S. or Canadian schools should have credentials submitted directly by the school. Notarized copies of credentials do not fulfill official certification requirements.

A list of all courses in progress, including recently completed course work which is not listed on the transcript, must also be included on the application. When possible, applicants must have school officials provide a statement of their rank in class. This statement should indicate applicants' performance relative to the performance of other members of their secondary or postsecondary school class. Applicants to some fields may be required to submit additional materials, such as background information and aptitude test results, or to participate in auditions. These items will be requested by the Office of Admissions and Records when needed and will be required only for applicants satisfying all other admission criteria.

— The results of the Test of English as a Foreign Language (TOEFL) or the English Language Institute (ELI) test, if required, as indicated on pages 29 and 30.

— Declaration and certification of finances as required of all foreign students.

Precollege Programs

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PROGRAMS FOR FRESHMEN

Freshman applicants accepting admission for the fall semester are strongly encouraged to participate in the Precollege Programs. The Precollege Programs include placement testing and academic orientation and advance enrollment for fall classes during June and July. The *Information for Admitted Students* brochure, which fully explains the programs, is sent to each admitted applicant. Freshmen entering in the fall semester who do not participate in the placement testing program and summer orientation/advance enrollment program must complete their required testing, academic advising, and class scheduling during the week immediately preceding the start of classes. Information about activities for new students is sent to all students before their arrival on campus.

Precollege Programs are not available for freshmen entering the University during the spring semester; they must complete required testing, academic advising, and registration during the week immediately preceding the start of classes.

Testing

During March, April, and May, beginning freshmen who have been admitted to the fall semester come to either the Urbana-Champaign campus or the University Center of the University of Illinois at Chicago campus to participate in a one-day program of required testing. The tests that must be taken during this one day on campus are: the Rhetoric Essay Test and placement tests in mathematics, chemistry, and foreign languages. These placement tests must be taken by admitted students if they had these subjects in high school but have not received college credit for them, and if they intend to pursue these subjects either as required or elective courses at the University.

Students who live outside of Illinois and more than 250 miles from Champaign-Urbana have the option of completing their testing as part of a two-day program during summer advance enrollment. Such students should consult the *Information for Admitted Students* brochure for additional information about the schedule and arrangements for their on-campus summer sessions.

Freshmen students who fail to complete all required spring testing will be assessed a $25 late fee (amount subject to change) to take the tests immediately preceding the start of classes if they are residents of Illinois and their Notice of Admission to the University is dated prior to May 1.

Placement tests are designed to help determine which course a student is best prepared to begin with in a particular subject area. Several introductory-level courses are generally available to students in each subject area. It is to a student's advantage to enroll in a course which is neither too difficult nor too easy relative to his or her high school preparation. Placement test scores are used for initial placement and are not recorded on the student's official academic record. Requirements for placement testing vary by college and curriculum. The *Information for Admitted Students* brochure contains a full description of required and optional testing.

Academic Advising and Orientation/Advance Enrollment

Students who have completed the testing required by their college of enrollment may participate in the orientation/advance enrollment program conducted at the Urbana-Champaign campus in June and July. During the one day that students are on campus for this program, they meet with an academic adviser who assists them in selecting a schedule of courses for the fall semester which satisfies college and curriculum degree requirements.

Since the results on the placement tests are used by the colleges and academic departments concerned to evaluate students' achievement levels and to assist them in arranging their class schedules, freshmen must complete all testing required by their colleges before they can

participate in the summer program. Students whose colleges have no required testing may participate in the summer program without completing the spring testing program.

Beginning freshmen who participate in the summer orientation/advance enrollment program have top priority in the scheduling of course requests for the fall semester. Interested students also have the opportunity to audition for band and choral organizations on the day of their advance enrollment.

PROGRAMS FOR TRANSFER AND READMITTED STUDENTS

New transfer and readmitted students have the opportunity to advance enroll during the summer for the fall semester. These students receive details of the advance enrollment program in the *Information for Admitted Students* brochure mailed with their Notice of Admission.

PARENTS' PROGRAM

Parents are cordially invited to accompany their son or daughter on the day of advance enrollment and to participate in the informational meetings.

ADDITIONAL INFORMATION

Questions concerning the Precollege Programs should be referred to:

Precollege Coordinator
University of Illinois at Urbana-Champaign
10 Administration Building
506 South Wright Street
Urbana, IL 61801
Telephone: (217) 333-6427

Special Opportunities

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Because of the comprehensive nature of the University of Illinois at Urbana-Champaign, arrangements for superior students differ among the various colleges and departments. Generally speaking, superior students are able to enter special courses or special sections of courses as freshmen and sophomores and are encouraged as juniors and seniors to participate in special programs for majors offered by the many departments. For details of these arrangements, see the descriptions in the college sections of this catalog.

Policies and procedures regarding placement and proficiency examinations, the College-Level Examination Program (CLEP), and the Advanced Placement Program are published in the current edition of the brochure, *Placement and Proficiency Examinations,* available at college offices or by writing to the Measurement and Evaluation Division, Office of Instructional and Management Services, University of Illinois at Urbana-Champaign, 307 Engineering Hall, 1308 West Green Street, Urbana, IL 61801, telephone (217) 333-3490.

ADVANCED PLACEMENT PROGRAM

The Advanced Placement Program, administered by the College Entrance Examination Board, is designed for high school students who are about to enter college and wish to demonstrate their readiness for courses more advanced than those usually studied in the freshman year. Advanced classes are offered in many high schools in one or more of the following subjects: art history, art studio, English language and composition, English literature and composition, French language, French literature, German language, German literature, Latin, Spanish language, Spanish literature, biology, chemistry, mathematics (calculus), physics, music literature, music theory, and social studies (American history and European history). There is a national examination in each subject, administered in May by the Educational Testing Service, which is designed to measure the competence of students in terms of the point at which college study in that subject should begin. The University encourages high schools and their outstanding students to participate in this program.

Examinations are prepared and graded by national committees of high school and college teachers. They are graded on the following scale: 5, high honors; 4, honors; 3, creditable; 2, pass; and 1, fail. Grade reports are sent to the universities each student specifies at the time of the examination. Each department within the University of Illinois at Urbana-Champaign

has the option of granting, or not granting, college credit and advanced placement on the basis of the board's grade.

Transfer students should refer to the Policy for the Acceptance of Nontraditional Credit on page 23 for the policy on accepting credit earned through the Advanced Placement Program.

Specific credit recommendations for beginning freshmen at the Urbana-Champaign campus are listed below. Assignment of credit in specific courses is dependent upon policies established by the individual department and the college and is subject to change upon annual review.

Art

Art history

Scores of 5 and 4 receive credit for Art 111 and Art 112 (8 semester hours).
Credit will not be awarded for scores of 3 and below.

Art studio

Portfolios must be submitted to the School of Art and Design for an evaluation in all studio areas.

Computer Science

Computer science

Scores of 5, 4, and 3 receive credit for Computer Science 121 (4 semester hours).
Scores of 2 received credit for Computer Science 105 (3 semester hours).

English

English language and composition

Scores of 5 and 4 receive credit for Rhetoric 105 (4 semester hours and exemption from the University rhetoric requirement).
Credit will not be awarded for scores of 3 and 2.

English literature and composition

Scores of 5 and 4 receive credit for English 103 (3 semester hours) and credit for Rhetoric 105 (4 semester hours and exemption from the University rhetoric requirement).
Credit will not be awarded for scores of 3 and 2.

Foreign Languages

French language

Scores of 5 and 4 receive credit for French 205 and French 207 (6 semester hours).
Scores of 3 receive credit for French 205 (3 semester hours).
Credit will not be awarded for scores of 2.

French literature

Scores of 5 and 4 receive credit for French 210 and French 207 (6 semester hours).
Scores of 3 receive credit for French 210 (3 semester hours).
Credit will not be awarded for scores of 2.

German language

Scores of 5, 4, and 3 receive credit for German 211 (3 semester hours).
Credit will not be awarded for scores of 2.

German literature

Scores of 5, 4, and 3 receive credit for German 231 (3 semester hours).
Credit will not be awarded for scores of 2.

Latin

Scores of 5, 4, and 3 receive credit and placement as follows:

Vergil examination: 3 semester hours of Latin credit and placement in Latin 201.

Lyric examination: 3 semester hours of credit for Latin 201 and placement in Latin 202.

Credit will not be awarded for scores of 2.

Spanish language

Scores of 5 and 4 receive credit for Spanish 209 (3 semester hours).
Credit will not be awarded for scores of 3 or below.

Spanish literature

Credit will be awarded for scores of 5 and 4 for Spanish 200 (2 semester hours).
Credit will not be awarded for scores of 3 or below.

Mathematics and Natural Sciences

Biology

Scores of 5 receive credit for Biology 110 and Biology 111 (10 semester hours).
Scores of 4 receive credit for Biology 100 (3 semester hours) and Biology 102 (3 semester hours).
Scores of 3 receive credit for Biology 100 (3 semester hours) and placement in Biology 102 or 103.
Credit will not be awarded for scores of 2.

Chemistry

Scores of 5 and 4 receive general chemistry lecture credit (6 semester hours) and placement in Chemistry 122 or 123.
Scores of 3 receive general chemistry lecture credit (3 semester hours) and placement in Chemistry 102 or 109. Students should take the departmental general chemistry proficiency examination.
Credit will not be awarded for scores of 2.

Mathematics

Calculus AB

Scores of 5, 4, and 3 receive credit for Mathematics 120 (5 semester hours) and placement in Mathematics 132.

Calculus BC

Scores of 5, 4, and 3 receive credit for Mathematics 120 (5 semester hours) and Mathematics 132 (3 semester hours) and placement in Mathematics 242.
Scores of 2 receive credit for Mathematics 120 (5 semester hours) and placement in Mathematics 132.

Physics

Physics B

Scores of 5 and 4 receive credit for Physics 101 and Physics 102 (10 semester hours).
Scores of 3 make students eligible to enroll in Physics 101 or take a proficiency examination for that course. If an A or B grade is earned in the course or on the proficiency examination, credit will be awarded for Physics 101 and Physics 102 (10 semester hours).
Scores of 2 make students eligible to take proficiency examinations in Physics 101, 102, 106, or 108.

Physics C

Scores of 5 and 4 will receive credit as follows:
Part I—Mechanics: Physics 106 (4 semester hours).
Part II—Electricity and Magnetism: Physics 107 (4 semester hours).
Scores of 3 are handled as follows:
Part I—Students may take a proficiency examination for Physics 106 or enroll in that course.
Part II—Students may take a proficiency examination for Physics 107 or enroll in that course.
Scores of 2 in Part I or Part II make students eligible, with the approval of the department, to take proficiency examinations in Physics 101, 102, 106, 107, or 108.

For additional information or to arrange to take a departmental proficiency examination, students should go to 233 Loomis Laboratory of Physics.

Music

Music literature

Scores of 5 and 4 receive credit for Music 110 (2 semester hours).
Credit will not be awarded for scores of 3 or below.

Music theory

Credit will not be awarded for any scores.

Social Studies

American history

Scores of 5 and 4 receive credit for History 151 and History 152 (8 semester hours).
Credit will not be awarded for scores of 3 or below.

European history

Scores of 5 and 4 receive credit for History 111 and History 112 (8 semester hours).
Credit will not be awarded for scores of 3 or below.

INTERNATIONAL BACCALAUREATE EXAMINATIONS

The University of Illinois at Urbana-Champaign will award credit on the basis of scores from several International Baccalaureate Examinations: anthropology, biology, chemistry, classics (Latin and Greek), economics, French, German, history, and philosophy. Those wishing to have such examination scores evaluated should request their high school to forward an official score transcript to the Division of Measurement and Evaluation, University of Illinois at Urbana-Champaign, 307 Engineering Hall, 1308 West Green Street, Urbana, IL 61801.

PROFICIENCY EXAMINATIONS

Proficiency examinations are offered in most courses open to freshmen and sophomores. A student may take proficiency examinations in more advanced undergraduate courses on recommendation of the head or chairperson of the department and approval of the dean of the student's college. Departmental proficiency exams are administered in unscheduled individual sessions or scheduled group sessions during the semester. Departmental offices can provide information regarding test date, place of administration, type of examination, and references that might be used when preparing for examinations. Course descriptions and prerequisites are listed in the *Courses Catalog*. (See the inside back cover of this publication for locations where the *Courses Catalog* may be obtained.) Proficiency examinations are generally given without cost to the student, but a fee may be charged to defray the cost of proficiency examinations prepared by agencies outside the University.

All regulations governing proficiency examinations will be applied in the context that the University must reasonably accommodate students' religious beliefs, observances, and practices in regard to scheduling of proficiency examinations if the student informs the person responsible for the scheduling of such examinations of the conflict within one week after being informed of the examination schedule. Any student may appeal an adverse decision.

An enrolled undergraduate student who passes a proficiency examination is given credit toward graduation for the amount regularly allowed in the course (1) if it does not duplicate credit counted for admission to the University or credit earned through some other testing program and (2) if it is acceptable in the student's curriculum. No official record is made of failures in these examinations, but some departments may keep records to prohibit the student from retaking the examinations. General campus policy information regarding proficiency examinations can be found in the *Code on Campus Affairs and Regulations Applying to All Students.*

Transfer students should consult page 22 for the policy on acceptance of proficiency credit for admission purposes.

Course credit is not awarded on the basis of the Proficiency Examination Program (PEP) administered by the American College Testing Program (ACT).

COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)

This program exists for the purpose of awarding proficiency credit, or otherwise recognizing college level competence, achieved outside the college classroom. Two types of tests are available: (1) general examinations cover the broad content of a study which might be expected to be covered by several introductory level courses and (2) subject matter examinations cover the specific content of a single college course. Credit can be earned and will be recognized by the University of Illinois at Urbana-Champaign for *some* CLEP General Examinations, but credit is *not* awarded for any of the CLEP Subject Matter Examinations.

Most students must fulfill general education requirements for degree purposes in four areas: humanities, social science/history, biological science, and physical science. CLEP General Examinations in Humanities, Social Science and History, and Natural Sciences (subtests in biological science and physical science) can be used to earn a waiver of the corresponding general education requirement, or a part of it, and to earn degree credit. Credit is not awarded by the University for scores from the CLEP General Examinations in English Composition or Mathematics. CLEP tests provide an opportunity for students to demonstrate knowledge in a general subject matter area which is as thorough as that required of a graduate who has not majored in that particular area. General education requirements are designed to ensure that graduates of the University are generalists as well as specialists. The University recognizes that this general knowledge may have been acquired by entering students through high school work, independent study, extracurricular reading, projects, or work experience. CLEP General Examination scores can be used to earn 3 or 6 credit hours and waiver of all or part of the requirement in each of the four general education areas. College policies vary in terms of the tests that are acceptable for earning credit and waiver, and in terms of the scores required for partial or complete waiver of a requirement.

Students may take CLEP exams at any CLEP National Testing Center designated by the Educational Testing Service (ETS), Box 966, Princeton, NJ 08540. Official score reports should be sent by ETS to Coordinator, Placement and Proficiency Testing, University of Illinois at Urbana-Champaign, 307 Engineering Hall, 1308 West Green Street, Urbana, IL 61801. Locations of CLEP National Testing Centers and test administration dates may be obtained by writing to ETS, or by inquiring at most college and high school counseling offices.

CLEP test scores earned by Urbana-Champaign beginning freshmen, including students with less than 12 semester hours of transferable classsroom credit attempted at other collegiate institutions, are evaluated for credit according to norms established for the campus. Transfer students should refer to the Policy for the Acceptance of Nontraditional Transfer Credit on page 23 for the policy on accepting credit earned through CLEP examinations.

CLEP examination scores reported by the Defense Activity for Non-Traditional Education Support (DANTES) testing centers will be evaluated against the same criteria which are applied to continuing UIUC students.

CAMPUS HONORS PROGRAM

The Campus Honors Program offers special challenges and opportunities to some of the most talented and highly motivated of the University's students. The program, under the sponsorship of the vice-chancellor for academic affairs, is designed to foster close, collaborative relationships between top students and distinguished faculty. This collaboration occurs through the small classes which characterize the program, through a faculty mentor system for sharing academic and research interests, and through the many informal contacts encouraged by the program's co-curricular offerings. The consistent aim is to encourage breadth and excellence from the outset of the student's college career, and to encourage close interaction with role models who are at the cutting edge of their academic disciplines.

Students in the Campus Honors Program are designated "Chancellor's Scholars," and this designation will appear on their transcript. Students who meet program requirements will continue as Chancellor's Scholars during their entire undergraduate career. Students admitted to the Honors Program may enroll in any undergraduate curriculum and are encouraged to participate in the specialized honors programs established at the college and departmental levels.

Courses

Two types of honors courses are offered: honors sections of regular courses and special honors seminars. These courses cover a wide range of disciplines and are intended to satisfy some of the general education requirements of each college. The courses are designed especially for students in the Campus Honors Program and are taught by some of the University's most outstanding faculty. To ensure close faculty supervision and maximum student-faculty interaction, small class sizes are maintained.

During the junior and senior years, students will concentrate on courses within their major department. However, cross disciplinary interactions will be fostered by special seminars that focus on the major issues facing society today.

Faculty Mentors

Each honors student is assigned a faculty mentor from the student's major field of interest. The mentors introduce students to the intellectual standards, methodologies, and historical development of their chosen academic discipline, and they provide advice and guidance about utilizing the vast academic resources of the University. Ideally the same faculty mentor works closely with the student through all four years, including planning for advanced study or a career. However, the Honors Program will accommodate students who wish to change their major or want to have a faculty mentor from a different discipline.

Special Opportunities

Other opportunities and resources provided by the program include:

— Special formal and informal interactions with distinguished scholars and performing artists provided through seminars, receptions, brown bag lunches, and dress rehearsals at Krannert Center for the Performing Arts.
— Special tours of the University of Illinois Library, Krannert Art Museum, supercomputing centers, and other specialized facilities.
— Honors House, a centrally located honors student center with a lounge, seminar, and meeting rooms.
— Priority registration for classes.
— Opportunities for participation in ongoing faculty research.
— Small grants to fund student research projects.
— Access to personal computers as well as a specialized PLATO notesfile (a University-developed interactive computer environment).
— Graduate-status access to the University of Illinois Library, the third largest academic library in the United States.

For additional information or to obtain an application form, contact: Campus Honors Program, University of Illinois at Urbana-Champaign, 1205 West Oregon Street, Urbana, Illinois 61801; (217) 244-0922. For full consideration, completed applications should be received by February 1 for admission the following fall.

EDMUND J. JAMES UNDERGRADUATE HONORS PROGRAMS

Undergraduate Honors Programs, named for one of the University's distinguished presidents, Edmund J. James, provide a number of special curricular opportunities to academically talented undergraduate students. Designation by the University as a James Scholar recognizes students of extraordinary ability and achievement. It entitles students to certain academic privileges, including the extended use of library facilities, and charges them with the responsibility for seeking sustained intellectual achievement throughout their undergraduate careers. James Scholar honors students are characterized by outstanding academic records; high general aptitudes for college work; and reputations for seriousness of purpose, persistence, and self-discipline in educational endeavors.

Students electing to participate in the program may enroll in any undergraduate curriculum; unusual academic arrangements are open to James Scholar honor students in all courses of study. These arrangements include provision of honors courses and sections, special seminars, and interdisciplinary colloquia. In addition, James Scholars are encouraged to pursue individual scholarly interests through independent study and research projects. Administrative coordination

of all undergraduate honors programs is currently conducted by the Office of Admissions and Records.

There is no monetary award associated with the designation, and students who need financial assistance should apply to the Office of Student Financial Aids.

Nomination Procedures

Academic requirements for participation in the program are determined by the respective colleges. Undergraduates in most colleges may "self-nominate" into the program provided the decision is based on prior achievement, on high school and college faculty or administrative advice, and is accomplished prior to the terminal dates set for entry into academic programs leading to an honors degree. Entering students, above a predetermined college selection index, are automatically admitted as James Scholar Designates in the College of Liberal Arts and Sciences. (See page 237 for further information regarding James Scholar honors students in Liberal Arts and Sciences.) Students may elect to leave the program or may be removed for failure to meet standards of academic performance in the various colleges.

During summer advance enrollment, freshmen in most colleges will receive additional information regarding specific college programs leading to an honors degree. At that time, in consultation with their advisers, students may self-nominate into the program and select an honors course or plan other honors activities.

Although the honors program in each college varies in detail, incoming freshmen electing to undertake an honors program will enter the University as James Scholar Designates. After completion of a period on campus, each designate's record will be reviewed by his or her college. He or she then will be invited to continue as a full James Scholar honors student *or* advised to drop from the program on the basis of criteria developed by each college. Resident and transfer students wishing to self-nominate into the program should inquire at their college offices.

James Scholar Recognition

Successful performance for one year as a James Scholar honors student is recognized and recorded on the student's University record as Edmund J. James Scholar (year).

Specific inquiries regarding the honors program of a particular college may be addressed to the college office in care of the honors dean. General information about campuswide honors recognition is available from the Campus Visitors Center, University of Illinois at Urbana-Champaign, 919 West Illinois Street, Urbana, IL 61801.

Honors Credit Learning Agreements

It is not expected that James Scholar honors students will take a full schedule of special courses; however, an average of at least one honors activity each semester is considered normal. To encourage sustained, independent, intellectual activity by superior students, the campuswide Honors Credit Learning Agreement Program enables students to earn officially recognized honors credit in regular undergraduate courses. This is accomplished by learning agreements between students and their instructors whereby students undertake special course-related projects. Upon successful completion of a project, students are awarded transcript-designated honors credit for a course. Forms for initiation of honors credit learning agreements are available in the college offices. *Note:* This program is currently under review and may undergo minor changes in the future.

TRANSITION PROGRAM

General Description

The Transition Program is a campus-sponsored academic support program designed to provide assistance to students admitted to the University of Illinois at Urbana-Champaign, but who have academic weaknesses that could place them "at risk" if they were permitted to enter the University without such assistance. Such students are admitted to the College of Liberal Arts and Sciences' General Curriculum through the Transition Program, where they may remain and receive developmental academic support for a period of up to two academic years.

An admission space is reserved in the curriculum selected by each student in his or her application. If the student's performance is satisfactory in the Transition Program, he or she is then permitted to transfer to that curriculum. While the majority of students enrolled through the Transition Program will remain in the program through the end of the sophomore year, as is the case with most General Curriculum students, transfer can occur earlier if the individual student meets the same requirements as other students pursuing the desired curriculum.

Through the Transition Program students are provided with:

— Intensive academic advising and personal career counseling.
— The opportunity to enroll in support-based sections of existing courses.
— Tutoring, diagnostic testing, developmental skills enhancement, enrichment activities, and other assistance as required.

The Summer Bridge Component

A subgroup of the students selected for admission through the Transition Program also is provided with the opportunity to participate in the Summer Bridge Component, a seven-week summer session program sponsored by the College of Liberal Arts and Sciences. This program engages the students in intensive coursework in mathematics, writing, and basic skills development and, at the same time, orients them to the University and campus living.

Each Summer Bridge Component participant receives institutional financial assistance to cover the cost of tuition, room, board, and books. In addition, with the exception of students who will participate in intercollegiate athletics and who are not eligible for such added financial assistance under National Collegiate Athletic Association regulations, each participant will receive a stipend consisting of a modest weekly living allowance and a lump-sum payment at the end of the summer session, if he or she has successfull completed the program and is eligible to continue enrollment in the Transition Program in the fall.

Selection of Students and Admission to the Program

Only those students who officially apply to the University in the prescribed manner and who meet established campus and program deadlines for application will be considered for admission through the Transition Program. The final decision on which students will be admitted to the campus through the Transition Program is the joint responsibility of the director of admissions and records and the director(s) of the Transition Program, acting on behalf of the College of Liberal Arts and Sciences.

General criteria to be employed in the selection of students for the Transition Program are as follows:

— If an applicant has a score of 15 or below on either the ACT[1] English *or* ACT Mathematics subtest areas, admission will be granted only through the Transition Program unless there is strong evidence that participation in the program is not necessary for the applicant's success.
— If an applicant has a score of 12 or below on either the ACT English *or* ACT Mathematics subtest areas, or if an applicant has a score of 15 or below on both ACT English *and* ACT Mathematics, participation in the Summer Bridge Component of the Transition Program will be required unless there is strong evidence that participation in the Summer Bridge Component is not necessary for the applicant's success. Eligibility of Summer Bridge Component participants to continue fall enrollment is contingent upon acceptable academic performance in the summer program and recommendation by the director(s) of the Transition Program.
— Other applicants may be invited or required to participate in the Transition Program or the Summer Bridge Component if, in the judgment of the director of admissions and the director(s) of the Transition Program, such participation is necessary for the applicant's success at the University.

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[1] SAT equivalents: 15 ACT English = 320 SAT Verbal
15 ACT Mathematics = 380 SAT Quantitative
12 ACT English = 270 SAT Verbal
12 ACT Mathematics = 350 SAT Quantitative

Additional Information

Additional information about the Transition Program may be obtained by contacting the office of the director of the Transition Program, College of Liberal Arts and Sciences, 270 Lincoln Hall, 702 South Wright Street, Urbana, IL 61801, telephone (217) 333-1705.

EDUCATIONAL OPPORTUNITIES PROGRAM

General Nature and Purpose

The Educational Opportunities Program (EOP) is designed to help provide a college education to persons who historically have been excluded from postsecondary education for a variety of reasons.

Students in the program, as do many other students, receive financial support from federal loans and grants, Illinois State Scholarship Commission Monetary Awards, and University tuition waivers. They also contribute toward their expenses through family contributions, summer and part-time employment, and personal loans. Supportive services for the program are provided by federal and University funds.

Through the Educational Opportunities Program, the University is attempting to:

— Admit students who otherwise might not be able to undertake a college-level program at a major educational institution and assist them in completing a baccalaureate degree. Participants receive the same benefits as other students and additional support if required.
— Increase the number of students from underrepresented ethnic minority groups on campus.
— Develop educational programs and policies, both academic and administrative, that will assist and support EOP students and which may well benefit all students.
— Provide students not in EOP the vital cultural and social experience of meeting, living with, and learning from students from other cultures.
— Add ethnic diversity to the campus.
— Provide and disseminate to other educational institutions and agencies information that will increase their ability to deal with educational and sociological programs of students from nontraditional backgrounds.
— Provide information on securing financial aid, student employment, and post-graduate opportunities for program participants.

Admission Requirements

Admission to the Educational Opportunities Program is limited to applicants from Illinois who are educationally or economically disadvantaged and who fall into one of the following categories:

— Beginning freshmen who meet the high school subject-pattern requirement and the high school rank and test score combination prescribed for the college and curriculum of their choice.
— Students not meeting the stated academic requirements may be considered for special admission if both the dean of the college concerned and the director of admissions and records (or their designated representatives) concur.

Equivalent SAT verbal and mathematics scores are acceptable in lieu of the composite ACT score. It should be noted that in some curricula, such as the performing arts and aviation, additional requirements must be met. (See pages 16 and 18.)

Supportive Services

Supportive services are available to help EOP students meet a wide range of needs as follows:

— Extensive academic advising, taking into consideration students' past educational achievements, test results, ability, and interests. The optimal class schedules and course selections are determined by students in consultation with a special academic adviser in each college.
— Specially designed course offerings, including basic courses in rhetoric, mathematics, and psychology and special class sections in existing courses.
— A Reading and Study Methods Clinic and Writing Laboratory to help improve reading, writing, and study skills.
— A tutoring system conducted by faculty and students to help EOP students effectively approach and master subject content.

— An office with specially trained staff to provide academic, social, personal, financial, and career assistance and general counseling.
— Precollege orientation programs to help students have a greater awareness of the programs and services available at the University.

Application

Applicants for participation in the Educational Opportunities Program must submit complete admission applications and arrange for their high school transcripts and test scores to be sent to the Office of Admissions and Records. They must also complete a Financial Need Analysis Form, indicating a desire to be considered for the Illinois State Scholarship Commission Monetary Award, the Pell Grant, and University Aid.

Application forms and additional information about the program may be obtained from the Office of Admissions and Records.

SERVICES FOR THE PHYSICALLY DISABLED

The design of the campus and the programming of the Division of Rehabilitation-Education Services affords students with physical disabilities full access to all campus academic and extracurricular programs. Division services are available to students with all causes and manifestations of physical disability: paraplegics, quadriplegics, persons with cerebral palsy, the visually and hearing impaired, and many others. Services include physical therapy and functional training; counseling; transportation; occupational therapy and prosthetics; textbook braille, tape, and reader service; medical services; and many others. An extensive program of recreation and sports is also available. The division works closely with the Housing Division and the student to arrange appropriate housing.

Prospective students are urged to contact the division to request information about services and how to arrange for them, and are strongly encouraged to visit campus and the Division of Rehabilitation-Education Services well in advance of enrollment to plan for their needs.

COURSE ATTENDANCE BY ILLINOIS HIGH SCHOOL STUDENTS

Qualified Illinois high school students are permitted, while in high school, to attend University classes for college credit. They may also enroll for college credit in correspondence and extramural courses offered by the University.

To qualify for high school and on-campus University concurrent enrollment, students must be recommended by their high school principals and have approximately a 4.5 (A = 5.0) grade-point average. Each case is considered on an individual basis. Students are assessed tuition at the regular *nondegree student* rates.

Courses taken by these students involve work over and above the secondary school curriculum. Grades and course credits will appear on their permanent University records and on official transcripts. If these students enter the University after high school graduation, the courses, if applicable, will be credited toward University graduation.

Students applying for on-campus admission or readmission under this program should be prepared to submit the following materials upon request:
— A $25 check or money order payable to the University of Illinois for the nonrefundable application fee.
— An application for admission or readmission to the University (not required of students enrolled under this plan in the immediately preceding semester or summer session).
— An official copy of the student's high school transcript covering all work completed in high school and courses in progress, together with ACT or SAT test scores if available. Acceptance under this program does not guarantee later acceptance as a degree candidate.

Information and applications for this program may be obtained from the Office of Admissions and Records at the address on the inside back cover. A separate undergraduate admission application is required if a student desires to attend the University after high school graduation or under the Early Admission Program described in the following section.

Students interested in correspondence study should request an application form from Guided Individual Study, University of Illinois at Urbana-Champaign, 104 Illini Hall, 725 South Wright Street, Champaign, IL 61820. It is suggested that students begin correspondence study to

coincide with the start of a fall or spring semester at the University. Applications should be submitted before the beginning of a semester. For the summer months, applications should be submitted by the middle of May.

EARLY ADMISSION PROGRAM

Under the Early Admission Program, high school students meeting competitive admission requirements *except receipt of a high school diploma* may be enrolled in the University after their junior year. This may reduce the length of the combined high school and college education by one year. Although each application is treated as a special admissions case, prospective students must have completed their junior high school year, have earned approximately 15 units toward a high school diploma, be in good academic standing, be recommended by high school staff who are able to evaluate their work, and meet competitive admission standards. Those accepted in the program are enrolled in regular four-year curricula and treated as first-year students.

Students interested in this program may apply for admission no sooner than January preceding the fall term of planned entry so applications can include complete information about the student's fall semester. However, applications should be completed as soon as possible after January 1.

For complete information, contact the Office of Admissions and Records at the address on the inside back cover of this catalog.

DELAYED ADMISSION

Persons approved for admission may request that their admission be delayed for a maximum of one year to participate in nonacademic pursuits. Applicants who wish to consider this alternative should request further information from the Office of Admissions and Records at the time they accept an admission offer since the program is limited.

CONCURRENT ENROLLMENT

Students at Parkland College and the Urbana-Champaign Campus

Students in good academic standing at Parkland College and at the University of Illinois at Urbana-Champaign may concurrently enroll in courses offered by the opposite institution if such courses are not available at the student's primary campus. Approval for concurrent enrollment must be obtained from the dean of students at Parkland College and the concerned college office at the University campus.

Concurrent enrollees are part-time nondegree students who pay the tuition and fees regularly assessed at each institution in accordance with the amount of work taken. The application fee is waived.

STUDY AWAY FROM CAMPUS

The University permits students who have been enrolled on campus for at least a semester or summer session, with the approval of their adviser and the appropriate departmental and college offices, to undertake independent study away from campus, in the United States or abroad.

Colleges and departments may establish variable credit courses that permit students to continue enrollment in the University while studying away from campus upon payment of an appropriate fee. Final determination of credit is made by the department and college concerned.

Overseas study programs offered by each college are described in the individual college sections of this catalog.

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INFORMATION SERVICES

Student Assistance Center

The Student Assistance Center in the lobby of the Fred H. Turner Student Services Building (333-INFO) answers questions and offers information about the University. If a student does not know exactly where to find help, the center will refer the student to the proper department.

COUNSELING SERVICES

Counseling Center

The Counseling Center is located on the second floor of the Fred H. Turner Student Services Building (333-3704). Clinical and counseling psychologists provide a variety of services addressing students' vocational, academic, personal, and interpersonal problems. Services include workshops on specific topics such as test anxiety, time management, and stress reduction; reading and study methods classes; individual, couple, and group counseling; and consultative services to University departments and staff.

Student Services

Staff in the Office of the Dean of Students at 130 Fred H. Turner Student Services Building (333-0050) provide general-services counseling to all students. Special counselors are available for students enrolled in the Educational Opportunities Program. This office also administers the emergency loan program and the Emergency Dean Service, to provide students counseling and assistance 24 hours a day in personal crises.

Student Financial Aid

Staff on the fourth floor of the Fred H. Turner Student Services Building (333-0100) provide information on the five main types of student financial aid administered by the University: scholarships, grants, loans, employment, and veterans' educational benefits. Employment counseling also is available to all students whether or not they have applied for financial aid. For a more complete description of student financial aid programs and services, see page 59 of this catalog.

CAREER SERVICES

Career Development and Placement

The Career Development and Placement Center in 310 Fred H. Turner Student Services Building (333-0820) provides students a wide range of career-related services, including individual and group counseling, assistance on job search efforts, general informational services, and help in identifying postgraduate employment opportunities. A *Job Vacancy Bulletin* is published biweekly to inform job seekers of available openings nationwide. The 2,000 volume Career

Resource Center has occupational literature and directory information, job search aids, government career information, and special interest resources to assist women and minorities with career and life planning. Each year, the office sponsors many on-campus career seminars of interest to the University community. Staff here also maintain permanent credentials/recommendation files for students registering for this service.

Health Professions Information

The Health Professions Office at 710 S. Goodwin Avenue, Urbana (333-7079) provides advising and career counseling for students interested in dentistry, medicine, osteopathic medicine, optometry, pharmacy, and podiatry. This office maintains a complete collection of catalogs from U.S. health professional schools as well as information on foreign schools. A faculty evaluation service is provided for the prehealth professional major. Counselors are available on an appointment basis to advise students on the preprofessional curriculum and help them apply to professional schools.

Counseling Center

The center, located on the second floor of the Fred H. Turner Student Services Building (333-3704), offers group and individual counseling to help students select fields of concentration and careers. Through review of test results and counseling sessions, students can obtain information about their abilities, interests, and values.

College Placement Offices

Individual colleges and departments on campus sponsor their own job placement programs for majors. These offices provide employment counseling and job search training. Each office makes arrangements for employer representatives to conduct interviews on campus, and some departments furnish individual and group resume services.

EXTRACURRICULAR ACTIVITIES

Registered Student Organizations

This office at 110 Fred H. Turner Student Services Building (333-7060) is the headquarters for registered student organizations. Information is available on over 600 student organizations, representing a wide variety of professional, social, recreational, athletic, and religious interests.

Illini Union Board

This organization, more commonly known as IUB, provides and directs cultural, educational, social, and recreational programs of an all-campus nature. Events such as the annual Dad's Day and Mom's Day celebrations and the Homecoming Court Program are coordinated by IUB, along with concerts, films, lectures, and vacation trips through the Travel Center. IUB also sponsors the Block I football cheering section, Quad Day, Activity Day, the spring and fall musicals, and publishes the *Illinibook*. The IUB office is located at 284 Illini Union (333-3660).

SPECIALIZED SERVICES

Educational Opportunity Program

Students who enter the University of Illinois under the auspices of the Educational Opportunities Program (EOP) are eligible for extensive academic services through this office, located at 130 Fred H. Turner Student Services Building (333-0054). Participants with academic need may receive individual or small-group tutorial assistance in most disciplines. The EOP staff provides academic, financial, career counseling, and study skills assistance for all EOP students.

International Student Affairs

The Office of International Student Affairs, 510 East Daniel Street (333-1303), orients international students to study and life in the United States and at UIUC. The staff offers counseling

on a variety of problems and issues documents for maintaining student status with the U.S. Immigration Service and with the student's government or sponsors.

Veterans Affairs

The Office of Veterans Affairs in 420 Fred H. Turner Student Services Building (333-0100) administers the GI Bill Educational Benefits Program and other veterans affairs programs.

Women's Resources and Services

Services primarily for women students are administered at 346 Fred H. Turner Student Services Building (333-3137). Special programs include Women's Wheels, a rape prevention ride service; the Illini Symposia for Women; a Women's Resource Directory; Verdell Frazier Young awards for women who are continuing interrupted educations; and a library of materials of concern to women. Staff have general information especially for traditional-age and reentry-age women students.

AIDS FOR IMPROVING ACADEMIC PERFORMANCE

Counseling Center

The center, located on the second floor of the Fred H. Turner Student Services Building, offers a noncredit, nongraded Reading and Study Methods course and a walk-in Learning Assistance Center. The course is designed to improve reading speed and comprehension and general study skills. Courses are taught in small groups with individual training provided when necessary. A nominal fee is charged. The walk-in Learning Assistance Center aims at more isolated study skill problems, is more self-oriented, and is free.

Writing Laboratory

Rhetoric 103 (Writing Laboratory) is open to any Educational Opportunities Program (EOP) student in conjunction with regular rhetoric courses. Rhetoric 103 is designed primarily as an adjunct to Rhet. 104, 105, and Sp. Com. 111, 112. A student may enroll on his or her own initiative, be placed in the course on the basis of test scores, or be referred by a rhetoric instructor.

The tutorial meets weekly and the student receives 1 semester hour of credit on a satisfactory/unsatisfactory basis. The tutorial is devoted to individual writing problems and may be repeated for a total of 2 semester hours of credit.

Supportive Instruction

Academic assistance is available to students in the Educational Opportunities Program (EOP) as described on page 42. Some departments have established revised courses and/or sections in existing courses for this purpose, and a faculty and student tutoring system has been developed. The program offers supplemental instruction and intensive reviews for several courses.

MEDICAL AND HEALTH SERVICES

Students registered in University courses for residence credit at the Urbana-Champaign campus are assessed a Hospital-Medical-Surgical Insurance Fee.

Health Center

The nonwaivable fee supports the medical services available to students at the McKinley Health Center. Dependents are not eligible for care at the health center unless they are also enrolled students at the Urbana-Champaign campus. There are four basic types of care available at the McKinley Health Center: routine office care, care for injuries or acute illnesses, mental health care, and health education.

Health center physicians are available for general medical care and advice while the student is on campus. They are experienced clinicians, certified in primary care specialties. Students may consult the health center physician of their choice in his or her office by appointment.

Care is equal to that offered by a private, general physician. A wide range of diagnostic tests is available to the health center physician, including laboratory procedures, x-ray examinations, and electrocardiograms. A limited pharmacy provides drugs for students when they are under the care of a health center physician.

McKinley Health Center is fully accredited by the Joint Commission on Accreditation of Hospitals as an ambulatory care facility.

A physician is available 24 hours a day to provide after-hours care to students or employees injured on the job.

The student is encouraged to become involved in health education and positive lifestyle change while on campus.

HOUSING

Housing for students at the University of Illinois at Urbana-Champaign is provided in University residence halls, fraternities, sororities, private residence halls and homes, and cooperative houses.

Present regulations require that all single undergraduate men and women students live for the entire academic year in housing which is certified by the University, unless the student reaches the age of twenty-one or achieves 30 semester hours of earned academic credit by August 15 of the academic year.

Housing which is certified includes University residence halls, fraternities and sororities, and privately owned housing which meets University standards. Within this system, there is a wide range of rates and services offered.

Information about housing is presented in greater detail in a brochure which is mailed to each student with the Notice of Admission to the University of Illinois at Urbana-Champaign. If additional information is needed, the student may write to the Housing Information Office, 2 Fred H. Turner Student Services Building, 610 East John Street, Champaign, IL 61820.

Students are encouraged to visit the Housing Information Office to discuss housing arrangements with a housing consultant. Office hours are from 8:00 a.m.to noon and 1:00 p.m. to 5:00 p.m., Monday through Friday, except on all-campus holidays.

University Residence Halls

Approximately 9,000 men and women live in twenty-one University residence halls. Any single undergraduate student qualified to enter the University may apply for residence hall accommodations. Room assignments are made in accordance with the University of Illinois policy on nondiscrimination.

University residence halls are located at points convenient to most areas of the main campus. Individual halls accommodate from 55 to 660 students, largely in double and triple rooms. Residence halls offer a room-and-board plan with twenty meals served each week, but room-only contracts are available in two halls.

A University residence hall contract is sent to each student who is accepted for admission. The completed contract should be returned promptly if the student desires accommodations in a University residence hall.

Privately Owned Certified Housing

Privately owned houses accommodating from five to sixty students are available and conveniently located near campus. Some offer room and board; others provide a room only or a room with kitchen privileges. Other houses offer a cooperative work plan. Privately owned residence halls, ranging from large, coeducational room and board halls to small, supervised, suite-living arrangements, are also available. All meet health, fire, safety, and educational requirements.

A list of these accommodations is available from the Housing Information Office, 2 Fred H. Turner Student Services Building, 610 East John Street, Champaign, IL 61820. Students and parents visiting the campus to make housing arrangements are encouraged to consult the staff at this office.

Sororities

Membership in sororities is by invitation. Invitations are issued following formal and/or informal rush functions. In most cases, upper-class students pledged by sororities move into

the chapter house of their choice at the beginning of the following year. Freshmen pledged to sororities move into the house as room is available, often during the sophomore year.

The major formal rush occurs in the fall, with informal rush periods continuously through the winter and spring. The dates for the rush periods and a description of the kinds of rush may be obtained by writing the Panhellenic Council, University of Illinois at Urbana-Champaign, 274 Illini Union, 1401 West Green Street, Urbana, IL 61801.

Fraternities

There are fifty-four nationally affiliated fraternities with approximately 3,000 members at the Urbana-Champaign campus. Fifty fraternities have living accommodations for most of their members, with an average occupancy of fifty men. The opportunity for membership in a fraternity exists whether the student lives in a fraternity house or not. Costs for room and board in fraternity houses vary, but are not significantly greater than those in other housing facilities.

Membership in fraternities is by invitation. Invitations are issued following formal and/or informal rush functions. The Interfraternity Council mails packets of rush information to men upon their acceptance to the University.

Rush periods occur throughout the fall and spring semesters. Additional information on fraternities may be obtained from the Interfraternity Council, University of Illinois at Urbana-Champaign, 274 Illini Union, 1401 West Green Street, Urbana, IL 61801.

Housing for Student Families

There are approximately 1,000 University-owned apartments, some of which are available to undergraduate students. There are also a variety of privately owned housing facilities in the community. An application for University-owned apartments can be obtained by writing to the Family Housing Office, University of Illinois at Urbana-Champaign, 1841 Orchard Place, Urbana, IL 61801 or to the Housing Information Office.

A listing of privately owned furnished and unfurnished apartments with rental rates, etc. is available for review in the Housing Information Office, 2 Fred H. Turner Student Services Building, 610 East John Street, Champaign, IL 61820.

Generally, March 15 to July 1 and November 1 to December 15 are considered the most desirable times to visit the campus to arrange for apartment accommodations for the first and second semesters, respectively.

University Policy on Nondiscrimination in Housing

In the rental of housing which is University-owned or University-certified, or of uncertified housing (apartments, uninspected rooming houses, etc.) which is listed with the Housing Information Office, the University of Illinois policy on nondiscrimination shall be followed. The University makes every effort to assure that accepted listings include only those owners or managers who comply fully with its nondiscriminatory housing policy.

If anyone has any reason to believe that an owner or manager of certified housing or any other listed housing has illegally discriminated against an individual, this information should be communicated directly to the Housing Discrimination Committee, in care of 2 Fred H. Turner Student Services Building, 610 East John Street, Champaign, IL 61820.

ILLINI UNION

Located in the middle of campus, the Illini Union is a center of services and activities for the entire University community, serving students, faculty, staff, alumni, and visitors since 1941.

Within the union are five different food services, including a twenty-four–hour vending room and a sweet shop, twenty bowling lanes, twenty-one billiards tables, video games, and a ticket box office. The union also offers free check cashing, TV rooms, an art gallery, three study lounges, a campus information desk, and a book center. Other services include ninety guest rooms, a University lost-and-found, checkrooms, the travel center, and special facilities for presentations, short-courses, conferences, and meetings sponsored by University departments.

Student Costs

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STUDENT EXPENSES

Tuition, fees, and housing charges for the 1987-88 and 1988-89 academic years were not available when this catalog was published. An undergraduate student budget for the 1986-87 academic year is shown in Table 2. Although student expenses are expected to increase, this budget can be used for planning purposes.

Information about tuition and fee charges for a current academic term, including charges for flight instruction and special programs, waivers and exemptions, and refunds, is available from the Fee Assessment Section, Window 25, 100 Administration Building, (217) 333-0210.

Table 2: Estimated Undergraduate Student Expenses for the 1986-87 Academic Year

(Average expenses for *single, undergraduate* students are shown below. This budget covers a full program of study for two semesters exclusive of such items as recreation and major articles of clothing.)

	Illinois Residents	*Nonresidents*
Tuition (freshmen and sophomores)	$1,406*	$4,218*
Fees	572	572
Textbooks and other school supplies	340	340
Meals and housing (includes double room and board residence hall charges of $3,010, provision for Sunday evening meals and meals during fall and spring registration that are not included in University residence hall rates, and $16 Residence Hall Association dues)	3,236	3,236
Travel allowance	350	350
Personal expenses (clothing maintenance, personal care at a moderate level)	1,076	1,076
Total: Two semesters	$6,980	$9,792

* An additional $246 for tuition must be added for juniors and seniors who are Illinois residents, and $738 must be added for juniors and seniors who are not residents of Illinois. An additional $315 travel allowance must be provided for students from states not adjacent to Illinois.

TUITION AND FEES

Tuition and fees for undergraduate students who were enrolled on campus in spring 1987 are shown in Table 3, page 52. Charges are assessed on the basis of the students' college of enrollment (undergraduate, graduate, or professional); their classification as residents or nonresidents of Illinois; and their credit range—determined by the total number of semester hours or graduate units for which they are registered. There is also a tuition differential for upper and lower division undergraduate students.

Undergraduate credit is counted in semester hours. Credit for graduate work is counted in units. For fee assessment purposes, 1 unit equals 4 semester hours. A full-time undergraduate student is one who is registered for 12 or more semester hours of credit.

The **Service Fee** supports operation of certain campus facilities such as the Illini Union, Fred H. Turner Student Services Building, Assembly Hall, and the Intramural Physical Education Building. The **Health Insurance Fee** covers the cost of the University Student Health Insurance Program that provides worldwide hospital, medical, and surgical insurance coverage. The **Health Service Fee** provides health care and limited prescription service at the campus Health Center and helps support the Counseling Center.

Students are also assessed:

— $4 each semester for **SEAL** (Students for Equal Access to Learning) to supplement existing financial aid for needy students. A refund is available upon request during the seventh and eighth weeks of instruction in a semester for students not desiring to participate.

— $4 each semester and summer session for **SORF** (Student Organization Resource Fee) to help support the Student Legal Service and the programs and services of registered student organizations. Refunds are available upon request during the fifth and sixth weeks of instruction in a semester and summer session.

— $1 each semester to support the **Student Government Association** (SGA). This is a nonrefundable fee.

LATE REGISTRATION

Students who register after on-campus registration in any semester, including University staff and persons who submitted admission applications too late to be processed before on-campus registration, must pay a Late Registration Fine of $15 (amount subject to change). *(This fine is not covered by scholarships or tuition waivers. It may be waived under exceptional circumstances upon petition to the Director of Admissions and Records. The petition form is available from the Fee Assessment Section, Window 25, 100 Administration Building.)*

FLIGHT TRAINING COURSES

In addition to the regular tuition and fees, students taking flight training pay:

Avi. 101 — Private Pilot	$1,500
Avi. 102 — Orientation Refresher	900
Avi. 120 — Private Pilot, II	1,932
Avi. 121 — Private Pilot, IIA	1,023
Avi. 130 — Commercial-Instrument, I	1,692
Avi. 140 — Commercial-Instrument, II	1,817
Avi. 200 — Commercial-Instrument, III	1,960
Avi. 210 — Commercial-Instrument, IV	1,923
Avi. 220 — Flight Instructor	1,518
Avi. 222 — Instrument Flight Instructor	916
Avi. 224 — All-attitude Orientation	830
Avi. 280 — Special Rating (Multiengine Land)	1,070
Avi. 291 — Special Ratings and/or Specialized Flight	1,260

(These fees are subject to change and are *not* covered by scholarships or tuition and fee waivers.)

RESIDENCE CLASSIFICATION FOR ADMISSION AND TUITION ASSESSMENT

The residence classification of applicants for admission is determined on the basis of the information given on their applications and other credentials. Eligibility for admission to the University is determined and tuition assessed in accordance with this decision.

Persons who take exception to the residency status assigned to them should refer to Paragraph 13 of the residency regulations on page 345, Appendix D.

INSTALLMENT PLAN FOR PAYING TUITION, FEES, AND HOUSING CHARGES

Students enrolled on campus may pay tuition and fees, single student residence hall charges, and flight instruction fees on an installment plan. This plan is not available to students registered

Table 3: Undergraduate Tuition and Fees for Spring Semester 1987

SEMESTER	*Full Program*		*Partial Programs*				
(Subject to change)	Range I		Range II		Range III		Range IV
	12 semester hours and above or 3 units and above		Above 5 but less than 12 semester hours or Above 1¼ but less than 3 units		Above 0 through 5 semester hours or Above 0 through 1¼ units		0 credit only
Undergraduate *(Freshmen & Sophomores)*	Illinois resident	Non-resident	Illinois resident	Non-resident	Illinois resident	Non-resident	Resident and non-resident
Tuition	$ 703	$2,109	$474	$1,422	$244	$ 732	$122
Fees*	286	286	286	286	249	249	249
TOTAL	$ 989	$2,395	$760	$1,708	$493	$ 981	$371
Undergraduate *(Juniors, Seniors & Nondegree)*							
Tuition	$ 826	$2,478	$556	$1,668	$285	$ 855	$143
Fees*	286	286	286	286	249	249	249
TOTAL	$1,112	$2,764	$842	$1,954	$534	$1,104	$392
***Fees** *(All students)*							
Service fee	$144		$144		$107		$107
Health insurance fee	44		44		44		44
Health service fee	89		89		89		89
SEAL	4		4		4		4
SORF	4		4		4		4
SGA	1		1		1		1
TOTAL	$286		$286		$249		$249

EIGHT-WEEK SUMMER SESSION	*Full Program*		*Partial Programs*				
(Subject to change)	Range I		Range II		Range III		Range IV
	6 semester hours and above or 1½ units and above		Above 2½ but less than 6 semester hours or Above ⅝ but less than 1½ units		Above 0 through 2½ semester hours or Above 0 through ⅝ unit		0 credit only
Undergraduate *(Freshmen & Sophomores)*	Illinois resident	Non-resident	Illinois resident	Non-resident	Illinois resident	Non-resident	Resident and non-resident
Tuition	$352	$1,056	$237	$711	$122	$366	$ 61
Service fee	72	72	72	72	54	54	54
Health insurance fee	44	44	44	44	44	44	44
Health service fee	89	89	89	89	89	89	89
SORF	4	4	4	4	4	4	4
TOTAL	$561	$1,265	$446	$920	$313	$557	$252
Undergraduate *(Juniors, Seniors, & Nondegree)*							
Tuition	$413	$1,239	$278	$ 834	$143	$429	$ 72
Service fee	72	72	72	72	54	54	54
Health insurance fee	44	44	44	44	44	44	44
Health service fee	89	89	89	89	89	89	89
SORF	4	4	4	4	4	4	4
TOTAL	$622	$1,448	$487	$1,043	$334	$620	$263

* **Note:** Further information about tuition and fees for Graduate, Law, Medical, and Veterinary Medicine students; Intersession; off-campus courses; flight training; Executive MBA Program; and tuition and fee exemptions is available from the Registration Services Office, Window 25, 100 Administration Building; telephone (217) 333-0210.

in extramural, correspondence, and intersession courses, or to students for whom this privilege has been denied.

Under the installment plan, semester charges are collected in three installments. The first is payable during the first ten days of instruction, and the remaining ones are payable in each of the two following months. Approximately one-half of the summer session charges must be paid during the first seven days of instruction with the remainder due during the following month. There is a finance charge of 1 percent of the amount deferred, or a minimum charge of $2—whichever is greater—when charges are paid in installments (amount subject to change).

Students who pay their accounts on the installment plan and later withdraw from the University, or reduce their registration to a lower credit range after the established refund deadline date, are liable for the full amount of tuition and fees assessed.

Installment payments are delinquent on the first day of the month following the date that payment is due. A delinquent service charge of 1 percent per month or a minimum monthly charge of $1, whichever is greater, is added to delinquent accounts (amount subject to change). The delinquent service charge is applied to all items charged to the student account and for which payment is delinquent.

Students who are in debt to the University at the end of any academic term may not be permitted to register in the University again. They are not entitled to receive diplomas or official statements or transcripts of credits until either the indebtedness has been paid or suitable arrangements for payment have been made, unless either there is pending a bankruptcy petition of the student seeking a discharge of all such indebtedness or all such indebtedness has been discharged.

REFUNDS

Cancellation of Registration

Individuals who sign and return a registration agreement and later decide not to attend the University may cancel their registration before the first day of classes.

If a request to cancel registration is received in the Office of Admissions and Records by 5:00 p.m. on the last day of on-campus registration, a student's registration agreement will be cancelled and tuition and fees will not be charged.

Students who have not attended any classes, or received any student services, may cancel their registration agreement up to 5:00 p.m. on the first day of classes in a term if they obtain the approval of their college. To be relieved of their obligation to pay tuition and fees, they must surrender their permanent I.D. card and/or the individualized validation label that accompanies their Registration Statement of Charges and Aid. These items must be returned immediately to the Fee Assessment Section, Window 25, 100 Administration Building, or by mail addressed to the Office of Admissions and Records.

Once students have attended a class, they may not cancel their registration agreement. If they leave the University, they must officially withdraw from the University.

Withdrawal from the University

Students who have been charged tuition and/or fees and later withdraw from the University during the refund period are assessed a nonrefundable charge in the amount of one-half of the service fee plus the Health Insurance Fee and the Health Service Fee (rounded if necessary to the next higher even dollar) or $30, whichever is greater. They continue to be covered by the health insurance program and are eligible to receive McKinley Health Center services, if fees for insurance and health services were paid, until the first day of on-campus registration for the next term. Use of intramural recreation facilities also is permitted. Students who have been exempted from the payment of these fees will have the nonrefundable charge reduced by the amount of the appropriate fee(s).

Refund periods are as follows:

— In a semester, twelve-week term, or eleven-week summer law program, *full refund,* except for the nonrefundable charge, during the first ten days of instruction; no refund thereafter;
— In an eight-week summer session, *full refund,* except for the nonrefundable charge, during the first seven days of instruction; no refund thereafter; and
— For University terms of different lengths, refund periods are determined proportionately in accordance with the above principles.

In case of extenuating circumstances, such as medically documented serious illness or injury, exceptions to these refund periods may be made by the director of admissions and records. The petition form to request a refund is available at Windows 25 or 27, 100 Administration Building.

Reduction of Program

Students who paid tuition and/or fees and later reduce their registration to a lower credit range, as indicated in Table 3, receive a full refund of the difference in tuition and fees specified for the ranges if the change is made during the periods designated above for withdrawal from the University. Thereafter, no refund is allowed.

EXEMPTIONS AND WAIVERS OF TUITION AND FEES

Appearing below are the waivers and exemptions available to students and the conditions under which they are granted.

Unless otherwise exempted by Board of Trustees authorization, the payment of tuition and fees is required of academic employees of the University or allied agencies under appointment for less than 25 percent of full-time services, and of nonacademic employees under appointment for less than 50 percent of full-time services.

For tuition and fees assessment purposes, a staff appointment must be to an established position for a specific amount of time and a salary commensurate with the percentage of time required, and it must require service for not less than three-fourths of the academic term. *Note:* A term is defined as running from the first day of registration through the last day of final examinations. Three-fourths of a term is defined as ninety-one days in a semester and forty-one days during the eight-week summer session. *Staff tuition and fees privileges do not apply to students employed on an hourly basis in either an academic or nonacademic capacity,* or to persons on leave without pay.

University employees appointed to established civil service positions whose rates of pay are determined by negotiation, prevailing rates, and union affiliation are *not* considered as paid on an hourly basis and are entitled to the same tuition and fees privileges accorded to other staff members under the regulations.

Students who resign their staff appointment, or whose appointment is cancelled before rendering service for at least three-fourths of the term, become subject to the full amount of the appropriate tuition and fees for that term unless they withdraw from University classes at the same time or before the appointment becomes void, or they file a clearance form for graduation within one week following the resignation date.

Students holding appointments, either as employees or as fellows, to the close of the second semester, and for whom tuition and/or the service fee have been provided by exemption or waiver, are entitled to the same exemption of tuition and/or the service fee for the summer session or term immediately following, providing they hold no appointments during that summer session or term.

Tuition and fee waivers are not granted for the Executive MBA Program or other self-supporting programs.

Application Fee

Applicants for admission must submit a $25 ($35 for international applicants) application fee (amount subject to change) to help defray processing costs. The fee is nonrefundable to applicants approved for admission and to denied applicants who submit complete or partial applications prior to the date all admission spaces are filled in the college and curriculum of their choice. Application fees will be returned to persons applying for admission to curricula that were closed to further admission or to programs not being offered.

Exempt from payment of the application fee are:

— Readmission applicants who are applying for a degree program if their last enrollment at the Urbana-Champaign campus was as an undergraduate degree candidate.
— Readmission applicants to the Graduate College who are applying to a graduate degree program in which they were enrolled within five years preceding the date of application.
— Faculty and academic/professional staff members and persons retired from the academic staff.

— Permanent nonacademic employees of the University and other institutions and agencies under the University Civil Service System who have been assigned to established permanent and continuous nonacademic positions and who are employed for at least 50 percent of full time.
— Staff members of certain specifically identified related agencies who are authorized tuition and/or service fee waivers.
— Summer-session-only graduate degree applicants after their first registration for on-campus work.
— Students registered at the University of Illinois at Chicago who wish to enroll at the Urbana-Champaign campus for the summer session only.

Waivers of the application fee are authorized for:

— Applicants who, because of extreme financial hardship, cannot meet the cost of the fee. In general, evidence of extreme financial hardship is a family income at or below the Bureau of Labor Statistics low standard family budget or the receipt of a testing waiver from the American College Testing Program or the College Entrance Examination Board. Applicants presently attending another collegiate institution may provide evidence of the financial package received at that institution.
— Applicants under approved foreign exchange programs in which the University participates, such as the Latin American Scholarship Program of American Universities (LASPAU) and the African Scholarship Program of American Universities (ASPAU), and foreign students participating in approved exchange programs where the waiver of fees is reciprocal.
— Intercampus transfers at the same level: undergraduate to undergraduate or graduate to graduate.
— Applicants requesting a change in admission consideration from one campus of the University of Illinois to another for the same level and term. This would include applicants denied admission on one campus as well as applicants wishing to cancel admission or admission consideration on one campus for similar consideration on another campus. Students applying simultaneously to two campuses must pay the application fee at each campus. Undergraduate students applying for admission to a professional or graduate college on either of the two campuses must pay the application fee.
— Students from other universities participating in the Committee on Institutional Cooperation (CIC) program by taking courses at the University of Illinois.
— Persons who are applying for CIC-supported fellowships to study at a CIC member institution.
— Graduate and professional applicants whose entry is advanced or delayed by action of their major departments are not required to pay a second application fee.
— University of Illinois students applying for work on a second campus as concurrent registrants, and non-University of Illinois students applying as concurrent registrants from another institution with which the University has a reciprocal agreement, and students who have been concurrent enrollees the immediately preceding term and who plan to return to their primary campus the following term.
— Cooperating teachers and administrators who receive assignment of practice teachers, or who receive assignment of students meeting the clinical experience requirement in teacher education, or who cooperate in research projects related to teacher education, cooperating librarians, school-nurse teachers, social welfare field supervisors, recreation field supervisors, health and education field supervisors, speech pathology supervisors, and physicians participating without salary in the University of Illinois College of Medicine at Urbana-Champaign.
— Students on leave-of-absence status on re-entry.

Waiver of Tuition

Tuition is waived for:

— All faculty and academic professional employees (excluding graduate assistants) of the University on appointment for at least 25 percent of full-time service, provided the appointments require service for not less than three-fourths of a term. This waiver also applies to staff members of certain specifically identified related agencies whose positions are considered equivalent to academic positions of the University.
— Graduate teaching and research assistants of the University on appointment for at least 25 percent but not more than 67 percent of full-time service, if approved for a waiver by their sponsoring unit and no tuition and fees payments are available from an outside agency.

Their appointments must require service for not less than three-fourths of the term. Those on appointment for 68 percent or more of full-time service pay tuition at the in-state rate and are eligible for waiver of the service fee only. *Caution:* Assistantship appointments are cumulative. For example, if a person holds two appointments, a 25-percent and a 50-percent assistantship appointment, he or she is ineligible for a tuition waiver.

— Academic staff members emeriti.

— Holders of tuition waiver scholarships.

— Holders of graduate tuition and fee waivers awarded by the Graduate College.

— Holders of grants or contracts from outside sponsors which provide payments to cover the total cost of instruction.

— Cooperating teachers and administrators who receive an assignment of practice teachers, or who receive assignment of students meeting the clinical experience requirement in teacher education curricula, or who cooperate in research projects related to teacher education, are exempted for one semester, quarter, or summer session for each semester, quarter, or equivalent of service rendered within two consecutive semesters. The exemption shall apply to the semester, quarter, or summer session of registration as designated by the student that is concurrent with, or following, the term of service, but must be applied no later than one calendar year from the end of the term of service. Concurrent registration on more than one campus of the University or in University extramural courses constitutes one semester, quarter, or session of eligibility for exemption. A similar waiver is authorized for cooperating librarians, school-nurse teachers, social welfare field supervisors, developmental child-care field supervisors, recreation field supervisors, health and education field supervisors, speech pathology supervisors, educational psychology supervisors, and physicians who participate without salary in the instructional program of the University of Illinois College of Medicine at Urbana-Champaign.

— Nonacademic employees of the University, of other institutions and agencies under the University Civil Service System, and of certain specifically identified related agencies in status appointments or in appointments designed to qualify for status in an established class (e.g., trainee, intern) for at least 50 percent of full-time services who register in regular University courses not to exceed:

- Six credit hours or two courses in a semester or quarter if on full-time appointment,
- Four credit hours if on a 75-percent to 99-percent time appointment, or
- Three credit hours if on a 50- to 74-percent time appointment, provided that they (1) meet conditions and eligibility for admission as prescribed by the Office of Admissions and Records, (2) are not students as defined in Civil Service Rule 7.7c, and (3) have approval by their employing departments of enrollment and of a makeup schedule to cover any time in course attendance during their regular work schedule.

The waiver of tuition also applies to any additional hours of registration by employees which keep them within the same fee assessment credit range. Employees whose total registration is in a higher range than that authorized by their tuition waiver pay only the difference between the waiver authorization and the higher range in which their total registration places them.

— Nonacademic employees in a status, learner, trainee, apprentice, or provisional appointment may enroll without payment of tuition in regular courses directly related to their University employment not to exceed 10 credit hours per semester provided they have made application and received prior approval for enrollment as required by procedures issued by the director of nonacademic personnel and set forth in *Policy and Rules—Nonacademic.*

Waiver of the Nonresident Portion of Tuition

Nonresident portion of tuition is waived for:

— All staff members (academic, administrative, or permanent nonacademic) on appointment for at least 25 percent of full-time services with the University or with specifically identified related agencies, provided the appointment requires service for not less than three-fourths of the term.

— The faculties of state-supported institutions of higher education in Illinois holding appointments of at least one-quarter time, provided the appointment requires service for not less than three-fourths of the term.

— The teaching and professional staff in the private and public elementary and secondary

schools in Illinois, such as counselors, school psychologists, school social workers, librarians, and administrators who hold such an appointment at least one-quarter time, and for not less than three-fourths of the term.
— The spouses and dependent children of all staff members (academic, administrative, or nonacademic) on appointment with the University or allied agencies for at least 25 percent full-time service, and of those listed in the second item above. (Dependent children are those who qualify as dependents for federal income tax purposes.)
— The spouses and dependent children of fellows and trainees who are employed as teaching assistants to the fullest extent permitted by their fellowship appointment.
— Persons actively serving in one of the armed forces of the United States who are stationed and present in the state of Illinois in connection with that service and their spouses and dependent children, as long as the military person remains stationed, present, and living in this state.

Service Fee Waivers

The service fee is waived, or exempted, for:
— Academic staff members of the University (except graduate assistants) and certain specifically identified, related agencies who qualify for tuition waivers.
— Graduate teaching and research assistants of the University on appointment for at least 25 percent of full-time service for not less than three-fourths of the term, if approved for this waiver by their sponsoring unit and no tuition and fees payments are available from an outside agency.
— Holders of graduate tuition and fee waivers awarded by the Graduate College.
— Students registered in absentia.
— Students registered in approved off-campus and study abroad courses.
— Students registered as participants in the high school concurrent enrollment program.
— Holders of grants or contracts from outside sponsors that provide payments to cover the total cost of instruction if this fee is charged to contract or grant funds.
— Cooperating teachers and administrators. (See Waiver of Tuition on page 55.)
— Academic staff members emeriti.
— Nonacademic employees of the University exempted from tuition as specified in the last two categories under Waiver of Tuition.

Health Service and Student Insurance Fees

Students totally exempt from payment of the Student Insurance Fee and the Health Service Fee, and therefore not eligible for these benefits and services, are:
— Persons registered for doctoral thesis research in absentia.
— Persons registered in off-campus courses and study abroad courses for zero credit. (If registered for more than zero credit, they are required to pay the insurance fee.)
— Students registered as participants in the high school concurrent enrollment program.
— University employees registered at the request of their departments in zero credit courses especially established to improve their work.
— Staff members who are registered as students and who are eligible for the mandatory State of Illinois Employees Insurance Program.
— Staff members of certain specifically identified related agencies who are eligible automatically to receive hospital-medical coverage as an employee benefit at the cost of the employing agency.

Cooperating teachers and administrators and certain field supervisors are exempt from payment of the Health Service Fee (see Waiver of Tuition on page 55). All other students enrolled on campus must pay the Health Service Fee unless they have a fellowship or grant that specifically pays for it.

Student Health Insurance

The University Board of Trustees requires all students to be covered by health insurance through either a program provided by the University or one determined to be equivalent to that offered by the University.

All students are assessed an insurance fee to cover the cost of the Student Comprehensive

Health Insurance Program. This fee may be waived for students who present evidence of equivalent insurance coverage and complete a petition for exemption from the insurance fee. EXEMPTION MUST BE REQUESTED IN PERSON.

Evidence of equivalent insurance may be established by the student's insurance policy or an identification card with a brochure outlining the benefits of the program. Military personnel and their dependents need only their military identification cards. Letters from employers, insurance companies, or agents will be accepted if they are on company letterhead stationery and are signed by a company official giving the name of the insurance company and defining the scope of the insurance coverage of the student.

To qualify for an exemption, a student must present satisfactory evidence of insurance and complete an exemption petition at one of the following locations:

— the Insurance Station at the Armory during on-campus registration,
— the Insurance Station at the Post-Registration Service Center in the Illini Union (fall and spring semesters), or
— the Student Insurance Office, Room 228, 505 East Green Street, Champaign (during the summer session and following the semester post-registration periods).

Items mailed to the Student Insurance Office or included in payments made by mail will be returned to the sender without action. Such items must be resubmitted by the student in person within the stated deadline.

Requests for exemption must be made in person within the first ten days of instruction during a semester or within the first seven days in the eight-week summer sessin.

Once waived, the exemption is continuous, and it is the student's responsibility to request reinstatement in the Health Insurance Program. Reinstatement may be requested at any time but is subject to approval of the student's Statement of Medical History.

Married students may purchase insurance for a spouse and/or children by paying an additional premium. A brochure explaining insurance benefits and possible coverage during periods that students are not enrolled is available from the Student Insurance Office, Room 228, 505 East Green Street, Champaign, IL 61820.

Financial Aid

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Financial aid programs are designed to provide assistance to students who otherwise would not be able to pursue a postsecondary education. A basic principle of most aid programs is that parents and students pay for an education according to their capability. Student financial aid programs, therefore, are designed to supplement—not replace—a family's contribution.

Even with relatively low tuition and fee charges, the cost of a college education still can be a financial burden for many families. (Estimated expenses for an undergraduate student at the University appear in Table 2 on page 50.)

No student, however, should fail to apply for admission because his or her family feel they are unable to pay the full costs of a college education. The Office of Student Financial Aid at the University of Illinois at Urbana-Champaign, adhering to the principle that applicants must demonstrate financial need, administers several financial aid programs. If the family's resources are determined insufficient to meet necessary educational expenses, financial aid in the form of loans, employment, grants, and/or scholarships usually can be made available.

The major sources of aid are federal and state government programs in addition to funds administered by the University. There also are funds for which a student applies directly to an awarding agency.

Personnel in the Office of Student Financial Aid are available to those needing information on financial assistance. ***Office hours:*** Monday through Friday, 9:00 a.m. to noon; 1:00 to 5:00 p.m., except on all-campus holidays. ***Address:*** Fourth floor, Fred H. Turner Student Services Building, 610 East John Street, Champaign, IL 61820. ***Telephone:*** (217) 333-0100.

THE APPLICATION PROCESS

To receive University-awarded aid, students must be enrolled full time: at least 12 undergraduate credit hours or 3 graduate units. (*Note:* Students in veterinary medicine who do not have a bachelor's degree should follow the steps prescribed for undergraduate students.)

UNDERGRADUATE ILLINOIS RESIDENTS

— *Complete a need-analysis document.* The Family Financial Statement (FFS) published by American College Testing (ACT) is preferred, but the Financial Aid Form (FAF) published by the College Scholarship Service (CSS) is acceptable.

— *Apply for an Illinois State Scholarship Commission (ISSC) Monetary Award and a Pell Grant.*[1] A separate application is not necessary. The need-analysis document provides an opportunity for applicants to release information to these state and federal programs.

UNDERGRADUATE NONRESIDENT

— *Complete a need-analysis document.* The Family Financial Statement (FFS) published by American College Testing (ACT) is preferred, but the Financial Aid Form (FAF) published by the College Scholarship Service (CSS) is acceptable.

— *Apply for a Pell Grant.*[1] A separate application is not necessary. The need-analysis document provides an opportunity for applicants to release information to this federal program.

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[1]All Pell Grant applicants receive a Student Aid Report that indicates whether or not they will receive a grant. An eligible student will receive at least a three-page report; all copies must be submitted to the Office of Student Financial Aid. A student who is ineligible for a Pell Grant will receive fewer copies; one copy must be submitted to the Office of Student Financial Aid.

GRADUATE/PROFESSIONAL RESIDENT OR NONRESIDENT

— *Complete a need-analysis document.* The Family Financial Statement (FFS) published by American College Testing (ACT) is preferred, but the Financial Aid Form (FAF) published by College Scholarship Service (CSS) is acceptable.

— *To apply for tuition-fee waivers, fellowships, assistantships, or traineeships,* students should contact their prospective academic department.

The Office of Student Financial Aid offers very limited scholarships for students in the Graduate College. Graduate, law, and veterinary medicine students may be offered low interest, long-term loans; they may also receive an employment award under the College Work-Study program.

Additional information on financial aid is available in the *Graduate Programs* catalog and the College of Law catalog.

Transfer, Incoming Graduate, Readmitted Students

Transfer and graduate students and students who have been readmitted to the University and wish to apply for financial aid must provide *financial aid transcripts* for each institution they have attended. Even students who have not received aid previously must provide this information before being considered for future assistance. Forms can be obtained from the Office of Student Financial Aid.

Independent Students

Applicants who want to apply as independent students must indicate on either the Family Financial Statement or the Financial Aid Form the conditions under which they qualify. Further documentation may be requested by the Office of Student Financial Aid.

How to Obtain Need Analysis Documents

The Family Financial Statement or Financial Aid Form is available from high school and community college counselors. The need analysis document, additional financial aid information, and an optional Supplemental Scholarship Information Form are in applications packets available from the Office of Student Financial Aid, Fourth Floor, Fred H. Turner Student Services Building, 610 East John Street, Champaign, IL 61820.

Application Dates

Students seeking financial assistance through the University are encouraged to apply early. When forms become available, they should be submitted for the next academic year as soon after January 1 as possible.

The deadline date for first priority processing and equal consideration of financial aid applications is ***mid-March,*** prior to the academic year for which aid is desired.

Applications completed after mid-March will be considered according to the availability of funds.

SOURCES OF FINANCIAL ASSISTANCE

Several types of financial aid are available. Since the University's funds are limited, students should seek assistance provided by national, state, and local organizations. A few awards are made on the basis of scholastic achievement, while others carry different or additional criteria.

Scholarships

Most scholarships require high scholastic achievement, but financial need is an additional criterion. Students do not apply for a specific scholarship. Recipients are determined from information supplied by all aid applicants on the FFS (or FAF) and the Supplemental Scholarship Information Form in order to distribute funds as extensively and equitably as possible.

In addition to scholarships administered by the Office of Student Financial Aid, numerous agencies, organizations, and businesses provide funds to students in specific curricula. These outside agencies, organizations, and businesses contact individual departments or units for nominations of potentially eligible recipients. Students may wish to contact the departments in which they are enrolled or have been accepted for admission for further information.

Federal and State Grant Programs

PELL GRANT

A major source of financial assistance for undergraduate students at the Urbana-Champaign campus is the federally funded Pell Grant program. Awards ranged from $200 to $2,100 in the 1986-87 academic year.

As indicated in The Application Process section (see page 59), the Pell Grant Student Aid Report is an integral part of financial aid awarded at Urbana-Champaign. While Pell Grant eligibility does not determine eligibility for other financial aid, students must demonstrate that they have applied for federal funds before receiving assistance from the University's more limited resources.

ILLINOIS STATE SCHOLARSHIP COMMISSION (ISSC) MONETARY AWARD

The Illinois State Scholarship Commission monetary award is another major source of grant assistance to undergraduate Illinois residents attending colleges and universities in the state. Ranging from $200 to $2,200 to be applied toward tuition and fee charges, this award is granted on the basis of demonstrated financial need.

Note: The ISSC also administers a State Scholar Program which recognizes scholastic achievement. It is not necessary for a student to be named a State Scholar to be eligible for a monetary award, nor does receiving such recognition guarantee eligibility for a monetary award.

However, the Merit Recognition Scholarship provides a $500 award to each student in the top 10 percent of his or her graduating class. The scholarship is awarded for the freshman year of study and is renewable at the sophomore level.

A recently established fund, the Congressional Teacher Scholarship Program, provides awards of varying amounts for students enrolled full time in teacher education curricula. Recipients must have graduated in the top 10 percent of their high school classes.

Grants Awarded by the Student Financial Aid Office

Awards from two grant programs are made by the Office of Student Financial Aid staff at Urbana-Champaign.

Supplemental Educational Opportunity Grant (SEOG) is a federally funded grant program distinct from the Pell Grant (above). The federal government annually provides postsecondary institutions with allocations from which awards are made. The maximum amount a student may receive during an academic year is $2,000. At Urbana-Champaign during 1986-87, awards ranged from $200 to $1,500.

Students for Equal Access to Learning (SEAL) grant is a program funded jointly by voluntary student contributions and matching funds provided by the state through the Illinois State Scholarship Commission. Students at Urbana-Champaign initiated this program by referendum in 1970 and have reaffirmed it every four years since. SEAL grants are awarded in accordance with rules prescribed by the Illinois State Scholarship Commission. During academic year 1986-87, SEAL awards ranged from $200 to $1,000.

Students do not apply directly for either of these grants. Recipients are selected from those who have completed the need analysis document and applied to required state and federal programs. (See The Application Process, page 59.)

EMPLOYMENT: A FORM OF SELF-HELP FINANCIAL AID

The Office of Student Financial Aid provides assistance to any University student seeking part-time work. Staff counselors will assist students even if they have not applied for University-administered aid. Employment counseling is available from 9:00 a.m. to noon and from 1:00 to 5:00 p.m., Monday through Friday, except on all-campus holidays.

The University of Illinois at Urbana-Champaign employs several thousand part-time student workers in offices, libraries, laboratories, farms, and food service units; each year, these student employees earn more than $7.5 million. In addition, many students work in the community.

Hourly wages for student workers vary according to the type of work and responsibility involved. Most jobs require from ten to twenty hours of work per week. Earnings can approximate 20 to 30 percent of a student's college expenses.

Students in curricula in which laboratory periods occupy most of the daytime hours generally

find food service work at mealtimes, or temporary odd jobs before or after regular University hours, are most convenient. Students in other curricula, by arranging class schedules to have consecutive hours free each day for working, may improve their employment opportunities. Job opportunities requiring advanced skills, knowledge, or experience offer excellent part-time, career-related opportunities to University students.

Campus Employment: College Work-Study

The University of Illinois participates in College Work-Study (CWS), a federal financial aid program that helps colleges and universities provide jobs for students. To participate in the College Work-Study program, a student must receive a CWS award as part of a financial aid offer from the Office of Student Financial Aid.

As with other awards made by the Office of Student Financial Aid, a student does not apply specifically for College Work-Study assistance. All aid applicants receive consideration for College Work-Study awards as well as for scholarships, grants, and loans.

A College Work-Study recipient must check with the Office of Student Financial Aid to obtain assistance in job placement. This should be done at the beginning of the academic term.

Most students in the CWS program work on campus.

Student Employment on Campus and in the Community

Most students who work during the school term do not secure jobs through the College Work-Study program. Without a financial aid award, students who wish to work part-time may apply for positions through regular University employment (on-campus jobs) or through the Job Development Program (off-campus jobs in the Champaign-Urbana area).

STUDENT LOANS: ANOTHER FORM OF SELF-HELP ASSISTANCE

Low-Interest Loans Awarded by the University

The Office of Student Financial Aid offers loans to students who demonstrate financial need. All applicants for University aid are considered for University-funded long-term loans, but a student does not apply for a specific loan fund. The Office of Student Financial Aid, acting for the University of Illinois as lender, determines who is eligible and the source and amount of the loan.

These loans normally carry an interest rate of 5 percent, and repayment is deferred until after the borrower ceases to be at least a half-time student.

Besides the University of Illinois Long-Term Loan program, Urbana-Champaign students also participate in the federally funded Perkins Loan Program (formerly National Direct Student Loan). These loans carry a 5 percent interest rate, and payment is deferred until nine months after the borrower ceases to be a full-time student. Health Professions Student Loans, available to veterinary medicine students, carry a 9 percent interest rate with repayment beginning 12 months after the borrower leaves school.

Guaranteed Student Loan Program

For students attending college at least half-time, the federal government has encouraged state governments to operate guaranteed long-term loan programs in conjunction with commercial lenders. This encouragement is an interest subsidy: the federal government pays the interest to the lender until the borrower must begin to repay the loan. In addition, the government pays a supplemental subsidy to match the prevailing interest rate of conventional loans.

While the federal government, the state, and private corporations subsidize and guarantee these loan programs, the student obtains the loan from a participating lending institution—bank, savings and loan association, or credit union. A student should contact the lending institution for additional information and a loan application.

General Terms of Long-Term Loan Programs

Students who contemplate borrowing money for educational purposes should consider carefully the general terms and repayment requirements of the loan programs listed below. For specific terms pertaining to any loan program, a borrower always should read the conditions which

appear on the promissory note and question any provisions that seem unclear. *Note:* The interest rates and minimum repayment amounts for all loan programs indicated below were the prevailing figures at the time of publication. When obtaining any loan, a borrower should be aware of the interest being charged and the repayment requirements at the time of signing a repayment note.

PERKINS LOANS (NATIONAL DIRECT STUDENT LOAN)

Aggregate maximum: $9,000 for undergraduates.
Interest rate: 5 percent per year simple interest on the unpaid principal balance; begins with the first repayment.
Forgiveness: In some cases. Contact the Student Loan Office, 125 Administration Building.
Begin repayment: Nine months after ceasing to be at least a half-time student.
Deferments: Up to three years for military service, Peace Corps, Vista, and for period of return to full-time student status; contact the Student Loan Office for other possible deferment categories.
Minimum repayment: $30 plus interest per month or amount needed to repay principal and interest in ten years.

UNIVERSITY OF ILLINOIS LONG-TERM LOAN

Aggregate maximum: $6,000 for undergraduates.
Interest rate: 5 percent per year simple interest on the unpaid principal balance, with some exceptions; begins with first repayment.
Forgiveness: None; cosigner required.
Begin repayment: Six months after ceasing to be at least a half-time student.
Deferments: By arrangement with the Student Loan Office, 125 Administration Building.
Minimum repayment: $30 plus interest per month or amount needed to repay principal and interest in ten years.

GUARANTEED STUDENT LOANS

Illinois Guaranteed Loan; United Student Aid Fund Loan; Higher Education Assistance Foundation; other state-guaranteed loan programs.
Aggregate maximum: Ranges from $17,250 for undergraduate students to $54,750 for graduate students including amount borrowed for undergraduate work.
Interest rate: 8 or 9 percent per year simple interest on the unpaid principal balance; begins with first repayment; rate is currently 8 percent for students who have not borrowed previously.
Forgiveness: None.
Begin repayment: Varies; usually six months after ceasing to be at least a half-time student
Deferments: Vary; usually up to three years for military service, Vista, Peace Corps, and for period of return to full-time student status.
Minimum repayment: Varies; usually $50 per month plus interest or amount required to repay principal and interest in ten years. The Illinois Guaranteed Loan must be repaid on a five-year repayment schedule, but, at the lender's discretion, an additional five-year extension may be granted.

SUPPLEMENTAL LOANS TO STUDENTS AND PARENTS

Two other loan programs are available directly from a lending institution such as a bank, savings and loan association, or credit union.

For dependent undergraduate students, parents or legal guardians may obtain up to $4,000 per academic year. The maximum aggregate that can be borrowed for each undergraduate student is $20,000. Interest varies and begins to accrue as soon as the loan is obtained with repayment beginning within 60 days.

For independent students, another supplemental loan program is available. Undergraduate students may borrow up to $3,000 per academic year up to an aggregate of $15,000 which *includes* any Guaranteed Student Loans undergraduate borrowers may have.

Graduate and professional students may borrow up to $4,000 per academic year up to an aggregate of $20,000. For graduate and professional students, the aggregate maximum *does not include* any Guaranteed Student Loans borrowed.

Interest begins to accrue as soon as the loan is obtained and is payable during the deferment

period, but student borrowers may have repayments on the principal deferred until 30 days after leaving school permanently.

More information, including repayment provisions and schedules, is available from lending institutions.

Approximate Monthly Payments Required by Loan Programs

Monthly repayment schedules under various loan programs are somewhat comparable; variances occur depending upon the length of time allowed to repay the entire loan amount and the interest charged. The monthly payments given below are approximations to help potential borrowers estimate the monthly obligation they will incur should they participate in a particular loan program.

PERKINS LOANS; UNIVERSITY OF ILLINOIS LONG-TERM LOAN

A borrower has up to ten years to repay either of these loans, with a minimum monthly repayment of $30 plus 5 percent per year simple interest. A student borrowing $5,000 and taking the full 120 months to repay the loan would make monthly payments of $42 plus interest. Since interest is charged only on the unpaid balance, the first payment of $62.83 (including principal and interest) is the highest amount scheduled to be charged in any month.

ILLINOIS GUARANTEED LOAN PROGRAM; HIGHER EDUCATION ASSISTANCE FOUNDATION; UNITED STUDENT AID FUND LOAN PROGRAM; OTHER STATE GUARANTEED LOAN PROGRAMS

Each of these loan programs carries a simple interest rate of 8 or 9 percent per year. Under the Illinois Guaranteed Loan Program, the borrower has up to five years to repay the loan, but at the lender's discretion, an extension of up to a total of ten years may be granted. Other programs also allow the borrower up to ten years to repay with a minimum monthly payment of $50. A student borrowing $5,000 and taking sixty months to repay an Illinois Guaranteed Loan would make monthly payments of $103 *including* interest; a student borrowing $10,000 and paying over sixty months would repay at $207 per month *including* interest.

Emergency Short-Term and Intermediate Loans

In emergencies, to meet educational expenses, students may borrow up to $100 for up to sixty days or until the last day of instruction for the semester, whichever comes first. In order to make more money available to a maximum number of students, applicants should borrow as little as is necessary for as short a period of time as possible. A service fee of $2 is charged for short-term loans. There is a 12 percent interest charge on overdue loans.

Intermediate loans in amounts not to exceed $200 may be made, if funds are available, to help meet the special financial needs of students who can demonstrate evidence of interrupted cash flow during an academic year and who can also demonstrate evidence of being able to completely repay the loan during the semester. A service charge of $6 is charged for intermediate loans. There is a 12 percent interest charge on overdue loans.

A special provision permits graduating seniors and graduate students to borrow up to $250 to meet expenses for employment interviews. An applicant must show evidence that the prospective employer will reimburse the recipient for such expenses.

Students who are U.S. citizens should apply in person to the Dean of Students Office, 130 Fred H. Turner Student Services Building. International students (noncitizens who are not in the United States as permanent residents) should contact the Office of International Student Affairs, for information.

Loan Repayment: Whose Responsibility?

Any recipient of a student loan, except for the Supplemental Loan for Parents, must recognize that such a loan is a debt incurred by the student, not the parents. The responsibility for understanding the conditions and regulations of the loan process, as well as the repayment schedule, rests with the student borrower. Additional information on the Perkins Loans program or the University Long-Term Loan program as well as loan indebtedness is available in the Office of Student Financial Aid. Applications and additional information on guaranteed loan programs are available from lending institutions. Emergency short-term and intermediate loan

information is available in the Dean of Students Office, 130 Fred H. Turner Student Services Building.

SPECIALIZED AID PROGRAMS

Although most financial aid award guidelines for Urbana-Champaign students are determined by the Office of Student Financial Aid, some aid programs are administered by groups or agencies to which the student applies directly. These are in addition to the two major grant programs described earlier: Pell Grant and Illinois State Scholarship Commission monetary award.

Programs for Veterans

ILLINOIS VETERANS SCHOLARSHIPS

An Illinois statute provides a scholarship for each veteran who has served honorably in the armed forces of the United States, provided certain eligibility requirements are met.
Value: The cost of resident tuition and fees for a period of time that is equivalent to four calendar years of full-time enrollment, including summer terms. For information regarding eligibility duration, students should contact the Office of Student Financial Aid. Undergraduate veterans should apply first for Illinois State Scholarship Commission monetary awards that can pay fees as well as tuition (see page 61).
Scope: Any state-supported college, university, or Class 1 community college in Illinois.
Eligibility: A veteran who served in the armed forces; was discharged after August 11, 1967; and had at least one year of active service. He or she must have been honorably discharged (or separated) from such service or received a discharge for medical reasons directly connected with active service.

Upon entering active service, he or she must have been a resident of Illinois or a student at one of the state-supported colleges, universities, or Class 1 community colleges in Illinois.

In addition to one of the requirements above, the veteran must have returned to Illinois within six months after leaving the armed forces. Former Illinois residents who left the state prior to entering the service should contact the Office of Student Financial Aid regarding their possible eligibility.

Members currently serving in the armed forces also are entitled to an Illinois Veterans Scholarship provided they have served at least one year and would be qualified for the scholarship if discharged.
How to Apply: Contact the Office of Student Financial Aid.

OTHER VETERANS EDUCATIONAL BENEFITS

Students seeking information regarding veterans' educational benefits should contact the veterans affairs staff in the Office of Student Financial Aid, University of Illinois at Urbana-Champaign, Fourth floor, Fred H. Turner Student Services Building, 610 East John Street, Champaign, IL 61820.

Other Specialized Scholarship and Grant Programs

TUITION WAIVERS

Several of the following scholarship programs provide tuition waivers or cover tuition costs.

Note: A *full* Illinois State Scholarship Commission monetary award covers both tuition and fees.

ATHLETIC GRANTS-IN-AID

Certain fields of athletic activity have been approved for grants-in-aid. These fields are baseball, basketball, cross-country, football, golf, gymnastics, swimming, tennis, track, and volleyball. Application should be made to the Director of Athletics, University of Illinois at Urbana-Champaign, 112 Assembly Hall, 1802 South First Street, Champaign, IL 61820.

FRED S. BAILEY SCHOLARSHIPS

Value: Varies.
Scope: Applicable only to the University of Illinois at Urbana-Champaign.

Eligibility: Men and women students in any program of study are eligible to apply. Awards are based on financial need, character, and superior scholarship.
How to Apply: Contact the University Young Men's Christian Association, 1001 South Wright Street, Champaign, IL 61820.

AVERY BRUNDAGE SCHOLARSHIPS

Avery Brundage, honorary president of the International Olympic Committee and an alumnus of the University, established this fund to recognize and assist University of Illinois students who are both academically gifted and exceptional amateur athletes.
Value: Can vary; $1,100 to each recipient in 1986-87; available to graduate and undergraduate students; renewable.
Scope: May be used at either of the two campuses of the University of Illinois.
Eligibility: Selection made by a University committee; judged on the basis of scholastic records, participation in amateur athletics, and personal recommendation.
How to Apply: Obtain applications from the Office of Student Financial Aid. Applications become available by mid-November and must be submitted by the end of February for the next academic year.

CHILDREN OF VETERANS SCHOLARSHIPS

The University of Illinois may award three scholarships per year in each county: one to a child of a veteran of World War II; one to a child of a veteran who served at any time during the Korean conflict between June 25, 1950, and January 31, 1955; and one to a child of a veteran who served at any time during the Vietnam conflict between January 1, 1961, and May 7, 1975.
Value: Waiver of tuition (but not fees) for four years. Applicants with financial need also should apply for the Illinois State Scholarship Commission monetary award which can cover fees as well as tuition (see page 61).
Scope: May be used in any course of study at either of the two campuses of the University of Illinois.
Eligibility: Candidate and veteran parent must be residents of Illinois and of the county where the application is made. Scholarships are awarded on the basis of ACT scores with preference given to candidates whose veteran parent is deceased or disabled. Children of veterans may compete even if they have completed college work at the University of Illinois or any other college.
How to Apply: Applications are available from the Office of Student Financial Aid or superintendents of Educational Service Regions October 1 through March 15 for the next academic year.

GENERAL ASSEMBLY SCHOLARSHIPS

Value: Waiver of tuition (but not fees) for varying continuous periods of time, not to exceed four years.
Scope: Each member of the General Assembly of Illinois may award one to four scholarships each year applicable only to the University of Illinois and one to four each year applicable to any other state-supported college or university.
Eligibility: Recipient must reside in the district represented by the nominating legislator.
How to Apply: Contact a member of the General Assembly who represents the district in which you reside.

ILLINOIS STATE BOARD OF EDUCATION PROGRAMS

Value: Cost of resident tuition and fees for one semester. Renewable.
Scope: May be used at any Illinois public or private institution. Part-time and full-time students eligible.
Eligibility: Teacher Shortage Scholarship: Must train in areas of teacher shortage and take a teaching position after program completion. Women and Minorities in Administration: Must train in approved administrative certification programs. Program available to women, blacks, Hispanics, Asian Americans, American Indians and Alaskan Natives.
How to Apply: Applications available from the Office of Student Financial Aid.

ILLINOIS DEPARTMENT OF CHILDREN AND FAMILY SERVICES ASSISTANCE

Value: Cost of resident tuition and fees for four years. The department also will provide maintenance and payment of school expenses to supplement the student's earnings and other resources.
Scope: Any state-supported college or university in Illinois. Only the maintenance allowance can be furnished if the student attends a private institution.
Eligibility: Recipients must be under the guardianship of the Illinois Department of Children and Family Services.
How to Apply: Contact local caseworker or Illinois Department of Children and Family Services, One North Old State Capitol Plaza, Springfield, IL 62706.

ILLINOIS NATIONAL GUARD/NAVAL MILITIA SCHOLARSHIPS

Value: Cost of tuition for not more than the equivalent of four years of full-time enrollment.
Scope: Can be used at any state-supported university or community college in Illinois.
Eligibility: Must currently be an enlisted member or officer—captain or below—who has served for at least one year in the Illinois National Guard/Naval Militia prior to receiving educational benefits.
How to Apply: Obtain application from any Illinois National Guard Armory or Naval Militia Unit, Office of Student Financial Aid, or the Illinois State Scholarship Commission. Return completed application to the Illinois State Scholarship Commission, 106 Wilmot Road, Deerfield, IL 60015.

ILLINOIS RESERVE OFFICERS' TRAINING CORPS SCHOLARSHIPS

Value: Waiver of cost of resident tuition (but not fees) while the recipient is enrolled in an ROTC program.
Scope: May be used in any course of study at any state-supported college or university in Illinois which offers one or more ROTC programs.
Eligibility: Must be an Illinois resident; enrolled in a university or college; and in the Army, Navy, or Air Force ROTC. Students may apply after a minimum of one semester of ROTC. If awarded, scholarships are retroactive to the beginning of the school year. Students may enter from an Illinois community college and must have completed all possible work at the community college.
Obligation: Military obligation is not incurred by acceptance of this scholarship at the freshman and sophomore levels.
How to Apply: Application forms are available at each ROTC unit. (See also the Army, Navy, and Air Force Reserve Officers' Training Corps sections in this catalog for federal scholarship opportunities.)

ILLINOIS DEPARTMENT OF REHABILITATION SERVICES

Value: Varies; based on need. Time covered varies according to individual needs and program requirements.
Scope: May be used at any postsecondary school.
Eligibility: Recipient must have a disability that is a handicap to employment.
How to Apply: Illinois residents should contact the State of Illinois Department of Vocational Rehabilitation, 1207 South Oak, Room 102, Champaign, IL 61820. Students from other states should contact their state Department of Rehabilitation Services.

SPECIAL TEACHER EDUCATION ASSISTANCE

Value: Waiver of resident tuition (but not fees) for four calendar years.
Scope: May be used at any Illinois state-supported college or university. Two hundred fifty scholarships are awarded at large throughout the state each year.
Eligibility: Candidate must be a recent graduate of an Illinois high school in the upper half of his or her graduating class or must hold a valid Illinois Teacher's Certificate.
Obligation: Recipient must agree to take courses in preparation for teaching and, upon graduation or termination of enrollment, teach in a recognized public, private, or parochial school in Illinois for at least two of the five years immediately following graduation or termination.
How to Apply: Recent high school graduates should contact their high school principal.

Holders of an Illinois Teacher's Certificate may obtain further information and applications from their local superintendent of Educational Service Region.

VERDELL FRAZIER YOUNG AWARDS

Value: Varies; most awards range from $100 to $500.
Scope: Applicable only to the University of Illinois at Urbana-Champaign.
Eligibility: For women who have experienced an interruption in their academic careers; preference to those with an interruption of at least two years.
How to Apply: Contact the Office for Women's Resources and Services, 346 Fred H. Turner Student Services Building, 610 East John Street, Champaign, IL 61820.

FOR MORE INFORMATION ON SCHOLARSHIP PROGRAMS

Many scholarship programs operate independently of any college or university, and recipients usually are free to attend the schools of their choice.

Each year University of Illinois at Urbana-Champaign undergraduates receive approximately $1½ million in such awards. College and University department heads can provide information on awards relating to a particular course of study. In addition, high school and community college counselors can advise students of various scholarship programs and can suggest publications that describe financial aid programs and application procedures.

Grading System and Other Regulations

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Academic, administrative, and conduct regulations are published in the *Code on Campus Affairs and Regulations Applying to All Students.* Students are responsible for complying with these regulations of the University, and those of the colleges and departments from which they take courses. This publication is available to students during on-campus registration, at the campus Student Assistance Center in the Fred H. Turner Student Services Building, in 177 Administration Building, and at the Post-Registration Service Center in the Illini Union. A copy may also be obtained by writing to the Office of Admissions and Records.

GRADING SYSTEM

Faculty members have the responsibility to provide the University with an individual evaluation of the work of each student in their classes. Final course grades are entered on the student's permanent University record at the close of each semester, term, or session. The University of Illinois at Urbana-Champaign uses the following grading system.

Courses in All Colleges Except the College of Law

A = excellent; B = good; C = fair; D = poor (lowest passing grade); E = failure, including courses dropped for academic irregularities; Ab = absent from the final examination without an acceptable excuse (counts as a failure). If a student is absent from a final examination and it is clear that taking that examination could not have resulted in a passing grade for the course, a grade of E may be given instead of Ab. Plus and minus signs are not authorized with these grades. In addition to the above grades, instructors in the College of Law are authorized to assign grades of B+ and C+.

Computation of Scholastic Averages

For numerical computation of scholastic averages, the following values are designated: A = 5.0; B+ = 4.5; B = 4.0; C+ = 3.5; C = 3.0; D = 2.0; E and Ab = 1.0.

UNIFORM METHOD FOR CALCULATION

A uniform method for calculating undergraduate grade-point averages has been established for all undergraduate colleges on the Urbana-Champaign campus. These averages are calculated on the basis of all courses attempted for which grades and credits are assigned and which carry credit in accordance with the *Courses Catalog.* Since courses offered by the religious foundations on or near the Urbana-Champaign campus are not official University courses and are not included in the *Courses Catalog,* the grades earned in such courses will not be included in the calculation of any grade-point averages. Grades of S, U, CR, NC, and Pass are reported on the official University transcript but are not included in the grade-point averages since grade-points are not assigned to these letter grades. This method of calculation is used to determine

honors, probation and drop status, financial aid and scholastic awards, and transfer between colleges on this campus.

For the purpose of computing a grade-point average for graduation, only the grades received in those courses counting toward the degree, including grades in repeated courses, are included in the average. (See Grade-Point Requirements for the Bachelor's Degree on page 76.)

For the special method used to determine eligibility for transfer into the University, refer to the transfer admission policy on page 21.

Other Symbols in Use (Not Included in Computation of Averages)

W — Approved withdrawal without credit.

EX — Temporarily excused. Approved extension of time to complete the final examination or other requirements of the course. Applies to *both* undergraduate and graduate students. Entitles the student to an examination later without fee, or additional time to complete other requirements of the course.

Only the dean of the student's college may authorize such an extension of time in individual cases. A grade of EX which is not removed by the end of the first eight weeks of instruction in the next semester in which the student is enrolled in an undergraduate college on the Urbana-Champaign campus of the University automatically becomes a grade of E. If the student receiving an excused grade does not reenroll on the Urbana-Champaign campus, the excused grade, if not removed, becomes an E after one calendar year.

CR — Credit earned. To be used only in courses taken under the credit–no credit grading option. (Instructors report the usual letter grades. Grades of A, B, and C will automatically be converted to CR.)

IP — Course in progress.

MISS — Missing grade. Instructor has failed to submit a grade for the student.

NC — No credit earned. To be used only in courses taken under the credit–no credit grading option. (Instructors report the usual letter grades. Grades of D, E, or Ab will automatically be converted to NC.)

DF — Grade temporarily deferred. To be used only in those thesis, research, and special problems courses extending over more than one semester which are taken by graduate students as preparation for the thesis and by undergraduate students in satisfaction of the requirements for graduation with honors, and in other *approved courses which extend over more than one semester.*

Requests for use of the DF grade in courses which extend over more than one semester, and therefore require postponement of the final grade report, must be submitted in writing by the executive officer of the department offering the course to the dean of the appropriate college for concurrence. A current list of courses which have received such approval is maintained in the Office of Admissions and Records.

S — Satisfactory, and

U — Unsatisfactory. To be used only as final grades in graduate thesis research courses, in graduate and undergraduate courses given for zero credit, and in other courses which have been specifically approved by the head or the chairperson of the department concerned, with concurrence of the appropriate college dean. A current list of courses that have received such approval is maintained in the Office of Admissions and Records.

PASS — To be used only in courses passed by special or proficiency examinations. A minimum grade of C is required to pass.

Credit–No Credit Grading Option

This credit–no credit grading option is designed to encourage student exploration into areas of academic interest which they might otherwise avoid for fear of poor grades. All students considering this option are cautioned that many graduate and professional schools consider applicants whose transcripts bear a significant number of nongrade symbols less favorably than those whose transcripts contain none or very few. Likewise, in computing a preadmission

grade-point average, some of these schools may convert the NC symbol to a failing grade since they do not know whether the actual grade was a D, E, or Ab.

A full-time undergraduate student in good academic standing (not on probation) may, with the approval of his or her adviser, take a maximum of two courses each semester under the credit–no credit grading option. Part-time students may take one course each semester under this option. Summer session students may take one course under the credit–no credit option.

A maximum of 18 semester hours earned under the credit–no credit grading option may be applied toward a baccalaureate degree at the Urbana-Champaign campus of the University. A correspondence course taken on a credit–no credit basis will be included in the 18 semester hour maximum credit–no credit limit allowed.

Any lower or upper division course may be chosen under the credit–no credit option except courses used to satisfy the University's general education requirements, or in courses designated by name or area by the major department for satisfying the major or field of concentration, or those specifically required by name by the college for graduation. In cases of subsequent change of major or field of concentration, courses previously taken under the credit–no credit option in the new field may qualify for meeting major requirements.

Undergraduate students must exercise the credit–no credit option for a course taken in residence only during on-campus registration, within the first eight weeks of instruction in a semester, during the first four weeks of an eight-week course taught in a fall or spring semester, or during registration or within the first four weeks of instruction during the summer session. Students may elect to return to the regular grade option by filing an amended request within the first eight weeks of instruction in a semester, within the first four weeks of instruction in an eight-week course taught during a semester, or within the first four weeks of instruction during the summer session. The credit–no credit option form must be properly approved and deposited in the college office.

Instructors are not informed of those students in their classes who are taking work under the credit–no credit option, and they report the usual letter grades at the end of the course. These grades are automatically converted to CR or NC. Grades of C or better are required in order to earn credit. Credit–no credit courses are not counted toward the grade-point average but are included as part of the total credit hours. Final grades of CR or NC (for credit or no credit) are recorded on the student's permanent academic record and subsequently will not be changed to letter grades.

CLASSIFICATION OF STUDENTS

Classification of undergraduate students is made by the Office of Admissions and Records based upon the number of credit hours earned. Classification for registration, certification, and assessment purposes is based on the following scale:

Freshman standing . . . . . 0-29.9 hours
Sophomore standing . . . . . 30-59.9 hours
Junior standing . . . . . 60-89.9 hours
Senior standing . . . . . 90 or more hours

TRANSCRIPTS OF ACADEMIC RECORDS

Former and currently enrolled students who have paid their University charges are entitled to receive, upon written request, a transcript of their academic records. Upon graduation or withdrawal from the University, students with outstanding loans are not issued a transcript until they have completed an exit interview with the Office of Business Affairs. Each transcript includes a student's entire academic record to date and current academic status. Partial transcripts are not issued.

The charge for transcripts is $2 per copy. For written certification of attendance, degrees, or other data, the charge is $1 per copy. For same-day service, available only if requested in person, $5 is charged for the first transcript or certification and the regular fee for extra copies ordered at the same time.

No charge is made if the request for a transcript is accompanied by a Teacher's Certification form. Transcripts of records for purposes of admission to the University of Illinois at Chicago are issued without charge.

Telephone requests for transcripts cannot be honored. Transcripts are released only by

written request to whomever students or former students designate. Written requests accompanied by a check or money order made payable to the University of Illinois should be sent to the Office of Admissions and Records (see the inside back cover for address information).

STUDENT RECORDS POLICY

It is University policy to comply fully with the Family Educational Rights and Privacy Act of 1974 as amended. Guidelines and regulations for discharge of the University's obligation under this act are contained in the *Code on Campus Affairs and Regulations Applying to All Students,* which is available to students at 177 Administration Building and by request from the Office of Admissions and Records.

Under these guidelines:

— Students have the right to inspect their educational records.
— Certain student records may be released only with the prior consent of the student.
— Certain student records can be released with or without the student's consent.
— Under certain conditions, parents may be granted access to a student's record with or without the student's consent.
— Procedures exist for students to challenge the contents of their educational records.
— The University may release without the student's consent information that appears in student directories and publications which are available to the public except when requested by a student to suppress this information. Forms for suppressing this information are available during on-campus registration and at the Post-Registration Service Center in the Illini Union. They must be completed within the first five days of classes in a semester. Each request will be in force until the first day of classes of the following semester.

For currently enrolled students, directory information includes the student's name; addresses; telephone numbers; college, curriculum, and major field of study; class level; date of birth; dates of attendance and full- or part-time status; eligibility for membership in registered University honoraries; degrees, honors, and certificates received or anticipated; weight and height for athletic team members; participation in officially recognized activities and sports; and institutions previously attended.

For former students, directory information includes the student's name; date of birth; last known addresses and telephone numbers; college, curriculum, and major field of study; dates of attendance and full- or part-time status; class level; honors; certificates or degrees earned at the University and the date(s) conferred; weight and height for athletic team members; participation in officially recognized activities and sports; and institutions previously attended.

FALSIFICATION OF DOCUMENTS

Any student who, for purposes of fraud or misrepresentation, falsifies, forges, defaces, alters, or mutilates in any manner any official University document or representation thereof may be subject to discipline. Some examples of official documents are identification cards, program request forms, receipts, transcripts of credits, library documents, etc.

Any applicant who knowingly withholds information or gives false information on an application for admission or readmission may become ineligible for admission to the University or may be subject to discipline.

Any student who knowingly withholds information or gives false information in any document or materials submitted to any member or agent of the University may be subject to discipline.

IDENTIFICATION CARDS

New students are issued a permanent photo identification card which is validated for every subsequent term in which they register; the I.D. card remains the property of the University. This I.D. card must be retained by students while they are registered at the University. Students who alter or intentionally mutilate a University I.D. card, who use the I.D. card of another, or who allow their own I.D. card to be used by another may be subject to discipline.

A charge of $17, payable at the I.D. Center, Window 27, 100 Administration Building, is made for replacing each lost, mutilated, confiscated, or stolen photo I.D. card. A charge of $l is made for the replacement of each lost, mutilated, confiscated, or stolen I.D. validation label.

An identification card for student spouses is available without cost at the I.D. Center.

STUDENTS IN DEBT TO THE UNIVERSITY

A penalty of $10 is assessed for each check students present to the University which is returned for insufficient funds or other reasons. Additional penalties, including dismissal from the University, may be imposed on students who permit their University accounts to become delinquent or who issue checks that are returned to the University unpaid.

Students who are in debt to the University at the end of any academic term may not be permitted to register in the University again. They are not entitled to receive their diplomas, official statements, or transcripts of credits until the indebtedness has been paid or suitable arrangements for payment have been made unless there are pending bankruptcy petitions of the students seeking a discharge of all such indebtedness or if all such indebtedness has been discharged.

AUTOMOBILES, MOTORCYCLES, MOTOR SCOOTERS, MOTOR-DRIVEN BICYCLES, AND BICYCLES

All students, their spouses, and dependent children with valid vehicle operator permits to operate automobiles, motorcycles, motor scooters, and motorbikes in Illinois may operate them on the Urbana-Champaign campus, provided they comply with University and state regulations. Public parking facilities are extremely limited near the campus. Unless students register their cars with the University, there is little opportunity for them to park near the campus when classes are in session or overnight. By registering their motor vehicles with the University ($5 fee per year), students may park or store their vehicles either in some University parking lots or on some University streets. Permits to park or store cars in University rental lots cost $24 per academic year.

Bicycles provide the best transportation on campus since bike paths connect the major buildings on campus. All student bicycles must be registered; there is no fee for this registration.

Information about the operation of motor vehicles and bicycles by students is available from the Division of Campus Parking, University of Illinois at Urbana-Champaign, 505 East Green Street, Champaign, IL 61820, telephone (217) 333-7217.

Graduation Requirements and Honors

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BACHELOR'S DEGREES AND CERTIFICATES CONFERRED

Candidates for a bachelor's degree must meet University requirements with respect to registration, residence, general education, English, and the minimum scholarship requirements of their college or division; must pass the subjects prescribed in their curriculum; and must conform to the requirements of that curriculum in regard to electives and the total number of hours required for graduation.

The Senate Committee on Student Discipline has the right to withhold the conferral of a degree. When dismissal from the University is a possibility because of a disciplinary infraction, the conferral of the degree is withheld until the disciplinary action has been resolved.

Bachelor's Degrees

Baccalaureate degrees conferred at the Urbana-Champaign campus with the minimum number of hours required for graduation are listed below.

Undergraduate College	*Minimum Semester Hours Required for Graduation*
College of Agriculture	
Bachelor of Science (B.S.) in	
Agricultural Education (B.S. in Agriculture)	130
Agriculture	126
Food Industry	130
Food Science	130
Forestry	126
Home Economics Education	130
Human Resources and Family Studies	126
Interior Design	120
Ornamental Horticulture	130
Restaurant Management	126
Soil Science	126

College of Applied Life Studies

Bachelor of Science (B.S.) in
- Health and Safety Studies 128
- Leisure Studies 126
- Physical Education 128

College of Commerce and Business Administration

Bachelor of Science (B.S.) in
- Accountancy 124
- Business Administration 124
- Economics 124
- Finance 124

College of Communications

Bachelor of Science (B.S.) in
- Advertising 124
- Journalism 124
- Media Studies 124

College of Education

Bachelor of Science (B.S.) in
- Business Education 126
- Early Childhood Education 124
- Elementary Education 124
- Occupational and Practical Arts Education 128
- Secondary Education 120
- Special Education 124

College of Engineering

Bachelor of Science (B.S.) in
- Aeronautical and Astronautical Engineering 134
- Agricultural Engineering 128
- Ceramic Engineering 132
- Civil Engineering 129
- Computer Engineering 128
- Computer Science 122
- Electrical Engineering 128
- Engineering Mechanics 128
- Engineering Physics 128
- General Engineering 127
- Industrial Engineering 130
- Mechanical Engineering 130
- Metallurgical Engineering 128
- Nuclear Engineering 127

College of Fine and Applied Arts

Bachelor of Fine Arts (B.F.A.) in
- Art Education 130
- Crafts 122
- Dance 130
- Graphic Design 122
- History of Art 122
- Industrial Design 122
- Painting 122
- Sculpture 122
- Theater 128

Bachelor of Landscape Architecture (B.L.A.) 128
Bachelor of Music (B.Mus.) 130
Bachelor of Science (B.S.) in
- Architectural Studies 127
- Music Education 130

Bachelor of Arts in Urban Planning (B.A.U.P.) 120

College of Liberal Arts and Sciences

Bachelor of Arts (A.B.) in
- Liberal Arts and Sciences 120
- Teaching of English 128
- Teaching of French 120
- Teaching of German 120
- Teaching of Latin 120
- Teaching of Russian 123
- Teaching of Social Studies 120
- Teaching of Spanish 123
- Teaching of Speech 132

Bachelor of Science (B.S.) in
- Biochemistry 120

Chemical Engineering 129
Chemistry 120
Geology 126
Liberal Arts and Sciences 120
Physics 126
Speech and Hearing Science 128
Teaching of Biology 125
Teaching of Chemistry 130
Teaching of Computer Science 120
Teaching of Earth Science 131
Teaching of Mathematics 120
Teaching of Physics 132

School of Social Work
Bachelor of Social Work 120

Certificates

Certificates are conferred upon completion of each of the curricula listed below. Candidates for a certificate must meet the general requirements of the University with respect to registration and minimum scholarship requirements; successfully complete all prescribed subjects and special requirements for their curriculum; and conform to the requirement regarding electives and hours required for graduation.

Undergraduate Curriculum	*Semester Hours Required for Certification*
Institute of Aviation	
Aircraft Systems	76
Avionics	69
Professional Pilot	65
Combined Professional Pilot/Aircraft Systems	98

GRADE-POINT REQUIREMENTS FOR THE BACHELOR'S DEGREE

All candidates for a degree must have at least a 3.0 (A = 5.0) grade-point average on all University of Illinois at Urbana-Champaign credits counted for graduation requirements and at least a 3.0 grade-point average on the combined transfer and University of Illinois at Urbana-Champaign credits counted for graduation requirements. Certain colleges have established higher scholastic graduation requirements for specific curricula. (Grades in courses taken at the other campus of the University are counted as transferred.)

Where a course has been repeated, both the original and subsequent grades are included in the average if the course is acceptable toward graduation, but the credit is counted only once. An original failing grade is not removed from the student's record for a course subsequently passed by special examination.

Students who do not meet the requirements stated above may graduate if they have the minimum grade-point average calculated by either of the following alternate methods:

— Exclude courses in which grades of D or E have been recorded not to exceed a total of 10 semester hours completed prior to the last 30 hours of work completed at the University of Illinois at Urbana-Champaign and counted for graduation requirements, *or,*

— A grade-point average of no less than 3.1 for the last 60 semester hours of work counted for graduation requirements and completed at the University of Illinois at Urbana-Champaign, except in those curricula where a higher scholastic graduation requirement is specified.

Each college office, on request, will inform students regarding the scholarship regulations of that college.

RESIDENCE REQUIREMENTS FOR GRADUATION

First Bachelor's Degree

In addition to specifc courses and scholastic average requirements, each candidate for a bachelor's degree from the University of Illinois at Urbana-Champaign must spend either the first three years earning not less than 90 semester hours *or* the last year (two semesters, or the equivalent) earning not less than 30 semester hours in residence at the Urbana-Champaign campus, uninterrupted by any work in another institution. Only those courses that are applicable

toward the degree sought may be counted in satisfying the above minimum requirements. (Either three twelve-week terms or four eight-week sessions are the equivalent of two semesters.)

Concurrent attendance at the University of Illinois at Urbana-Champaign and another collegiate institution does not interrupt the residence requirement for graduation.

Credit earned through the Advanced Placement Program is included in the first 90 semester hours and is not considered as interrupting residence.

Credit allowed toward graduation for completion of courses of study offered by the religious foundations located in Urbana-Champaign is not counted as interrupting residence or counted toward satisfying minimum residence requirements for graduation.

Attendance at another institution under the CIC Program or participation in the University of Illinois foreign study programs or the Study away from Campus Programs for which students are registered in Urbana-Champaign courses does not interrupt residence, and credits earned through these programs are counted as residence credit toward graduation, provided that within the last two years of study at least 30 semester hours have been earned in courses taken on the Urbana-Champaign campus.

Transfer students from junior colleges must, after attaining junior standing, earn at the University of Illinois at Urbana-Champaign or any other approved four-year institution at least 60 semester hours acceptable toward their degree, in addition to meeting the usual residence requirement for a degree from the University of Illinois at Urbana-Champaign.

Students transferring from the University of Illinois at Chicago to Urbana-Champaign as candidates for degrees must satisfy the residence and academic requirements for graduation established for the curriculum entered on the Urbana-Champaign campus. Since the campuses do not have identical academic programs, students who are contemplating a transfer should consult with the college to which they expect to transfer.

A student attending as a "visitor only" is not considered a "student in residence."

A student who requests that the residence requirement for graduation be waived must submit a petition to the dean of his or her college, who will take action on the petition.

A person who wishes to obtain a degree in a given semester but is not eligible to take courses that semester on the Urbana-Champaign campus without applying for readmission must apply to the director of admissions and records for readmission for the purpose of obtaining a degree. Students who are on drop status may not graduate until they have been readmitted to their college.

Second Bachelor's Degree

A student who has received one bachelor's degree may be permitted to receive a second bachelor's degree from the University of Illinois at Urbana-Champaign provided all specified requirements for both degrees are fully met and the curriculum offered for the second degree includes at least the final 30 semester hours which are earned in residence at the Urbana-Champaign campus and not counted for the other degree.

The second bachelor's degree may be earned either concurrently with or subsequent to the first degree.

Candidates for a second bachelor's degree must meet the same residence requirements as for the first degree.

Only those courses that are acceptable toward the degree sought may be counted in satisfying the above minimum requirements. This includes the 30 additional hours required for the second degree.

GENERAL EDUCATION REQUIREMENTS

A minimum of 6 hours each in the humanities, the social sciences, and the natural sciences is required for graduation in all undergraduate curricula. Approved courses should be distributed over at least three years. Upon request, individual colleges will provide students with the general education requirements for their curriculum and the list of courses acceptable for this purpose.

ENGLISH REQUIREMENT FOR GRADUATION

Satisfactory proficiency in the use of English is a requirement for all undergraduate degrees awarded at the Urbana-Champaign campus of the University. This proficiency can be certified by the satisfactory completion of a one-semester, 4-hour course of either Rhetoric 105 or 108 or by the satisfactory completion of the two-semester, 6-hour sequence of Speech Communication 111 and 112 (Verbal Communication).

If the academic credentials of a transfer student do not indicate fulfillment of course work equivalent to the University of Illinois English graduation requirement, the student may be administered the English Placement Test (EPT) or the Transfer Writing Examination.

Under certain conditions, students may satisfy the English requirement for graduation through satisfactory completion of courses offered by the Division of English as a Second Language (ESL). Satisfactory completion of ESL courses (ESL 114-ESL 115) satisfies the English graduation requirement. Evidence that a student is eligible to enroll in these courses is established by a satisfactory score on the English Placement Test, a test of oral and written English administered by the Division of English as a Second Language. On the basis of this test, the student will be enrolled in the course or courses appropriate to his or her English needs.

If a student's score on the EPT is higher than the proficiency level of students in ESL 115, that student must take the Transfer Writing Examination offered by the Department of English.

Those students whose deficiency in English requires that they take one or more of the ESL noncredit courses (ESL 109, ESL 110, and ESL 111) are not allowed to register for a full academic program and must complete their noncredit requirements before enrolling in the ESL 114-115 sequence.

FOREIGN LANGUAGE COURSES

Except as prohibited or limited by the established policy of the student's college, credit in University foreign language courses taken to remove high school entrance deficiencies may, at the discretion of the college, be counted in the total hours required for graduation and be accepted in partial or complete satisfaction of the foreign language requirement for the degree.

Normally no more than 10 hours of proficiency credit for the study of a single foreign language at the elementary and intermediate level shall be counted for graduation in the College of Liberal Arts and Sciences. Additional credit may be granted for advanced courses emphasizing literature and language structure rather than communicative competence in the language.

RELIGIOUS FOUNDATION COURSES

Courses of study offered by the religious foundations located in Urbana-Champaign that have been approved by the College of Liberal Arts and Sciences Committee on Courses and Curricula are accepted for credit by the University *provided the student is currently registered in University courses.* Registration in these courses is limited to students of sophomore standing or above who are currently registered on campus in University courses and must be approved in advance by the dean of the student's college. Grades in these courses are not included in the student's all-University scholastic average, and the courses are not counted as interrupting residence or toward satisfying minimum residence requirements for graduation.

A maximum of 10 semester hours of credit in religious foundation courses may, with the approval of the dean of the college concerned, be counted toward graduation.

The above credit limitations and other restrictions apply to religious foundation courses only and *not* to courses offered by the University of Illinois Program in Religious Studies.

CORRESPONDENCE AND EXTRAMURAL COURSES

After matriculation, students may count toward their degree, with the approval of the dean of their college, as many as 60 semester hours of credit earned in extramural and/or correspondence study, provided:

— They complete all the remaining requirements for the degree in residence at the University of Illinois at Urbana-Champaign, *or*

— They present acceptable residence credit for work done elsewhere and complete the

requirements needed for their degree in residence at the University. In all cases, the senior year (two semesters of not less than 30 semester hours) must be done in residence at the University of Illinois at Urbana-Champaign.

Students who have completed their first three years in residence at the University of Illinois at Urbana-Champaign, earning a minimum of 90 semester hours, may do all or part of their senior year in correspondence or extramural study, subject to meeting all the requirements for their degree.

Credit for correspondence work taken with fully accredited institutions may be allowed, but only on approval of the dean of the student's college.

THESES

If a thesis is to be submitted in partial fulfillment of the requirements for a bachelor's degree, the subject must be announced by the end of the sixth week of instruction in the first semester of the student's senior year. The work must be done under the direction of a professor in the department concerned and must be applicable to the curriculum in which a degree is expected. A maximum of 10 hours of credit in thesis work may be counted toward a bachelor's degree.

UNDERGRADUATE CREDIT FOR SERVICE AND EDUCATION IN THE ARMED FORCES

The University grants registered students college credit for certain training and experience in the armed forces of the United States. The student who completes military service in the U.S. Air Force, Army, Marine Corps, Navy, or Coast Guard, including basic or recruit training of six months or more, is awarded 4 semester hours credit in basic military science upon presentation of evidence on form DD-214 of honorable discharge or transfer to the reserve component.

Correspondence courses for which the student has passed the end-of-course test or examination prepared by the United States Armed Forces Institute that are baccalaureate-oriented and which correspond in level and content to courses offered at the University of Illinois at Urbana-Champaign are recognized for credit.

Credit recommendations in the *Guide to the Evaluation of Education Experiences in the Armed Forces* (published by the American Council on Education) for military service school training will be considered for transfer credit as follows: (1) credit will be granted for college-level baccalaureate-oriented training and education, (2) vocational credit related to the student's curriculum choice will be referred for consideration to the dean of the college in which the student is enrolled, and (3) duplicate credit will be deleted. Applicability of military credit toward a particular degree is determined by the dean of the college. Additional information may be obtained from the Office of Admissions and Records.

GRADUATION WITH HONORS

Recognition for superior academic achievement is given by the University and by the colleges and departments. Honors activities are under the general supervision of the Office of Admissions and Records, affiliated with national and regional honors education organizations such as the National Collegiate Honors Council and the Honors Council for the Illinois Region.

Each college, with the approval of the Urbana-Champaign Senate and the Board of Trustees, prescribes the conditions under which degree candidates may be recommended for graduation with honors. These distinctions are noted on the student's diploma, permanent University record, and official transcripts of credits. Detailed information concerning the requirements for graduation with honors is included in the sections of this catalog applying to the individual colleges and departments.

UNIVERSITY HONORS

Continuous academic achievement is recognized by inscribing the student's name on a Bronze Tablet that hangs on a wall of the Main Library. To qualify, undergraduate students must:

— Have at least a 4.5 (A = 5.0) cumulative grade-point average for all work taken at the University through the academic term prior to their graduation, and

— Rank, on the basis of their cumulative grade-point average (including UIUC and transfer work, if any) through the academic term prior to their graduation, in the top 3 percent of the students in their college graduating class.

Transfer students, in addition to meeting the general rules for qualification, must satisfy two additional requirements: they must have cumulative University of Illinois at Urbana-Champaign grade-point averages as high as the lowest ones listed for students in their college who qualify on the basis of having completed all of their work at the University of Illinois at Urbana-Champaign; they must earn 40 or more semester hours at the University of Illinois at Urbana-Champaign through the academic term prior to their graduation.

For the purpose of this award, *college graduating class* means all students receiving bachelor's degrees from the same University of Illinois at Urbana-Champaign college between July 1 of each year and June 30 of the next.

For the purpose of this award, *academic term prior to graduation* means: for August graduates, the preceding spring semester; for October graduates, the preceding spring semester; for January graduates, the preceding summer session; for May graduates, the preceding fall semester. The list will be determined each year following the availability of grades for the fall semester.

PHI KAPPA PHI

The national honor society of Phi Kappa Phi recognizes and encourages superior scholarship in all academic disciplines. To be eligible, juniors (72-89 letter-graded hours) must have a minimum cumulative grade-point average of 4.75 *and* a scholastic rank in the upper 5 percent of the junior class; seniors (90 or more graded hours) must have a minimum cumulative grade-point average of 4.5 *and* a scholastic rank in the upper 10 percent of the senior class.

Invitations to membership are mailed to all eligible juniors and seniors and an initiation program is held near the end of each semester.

THE DEAN'S LIST

The names of undergraduates who have achieved a grade-point average for a given semester in the top 20 percent of their college class will be included on a list prepared for the dean of the college. (In the College of Fine and Applied Arts, the names of eligible undergraduates who have achieved a grade-point average for a given semester in the top 20 percent of all students *in their curriculum* will be listed.) This list is publicized within the University and is sent to news agencies throughout the state. Names of James Scholars are preceded by an ampersand (&).

To be eligible for Dean's List recognition, students must complete successfully 14 academic semester hours of which at least 12 must be taken for letter grade (A, B, C, D, E, Ab). Only grades in hand at the time the list is compiled will be considered in determining eligibility unless it can be established the final grade average will be above the minimum required regardless of the grade eventually received; students with EX, DF, or missing grades will be added as soon as letter grades are received and eligibility can be determined. Credits earned during the semester through proficiency, CLEP, and advanced placement examinations may *not* be counted toward the 14 semester hour requirement.

Individual colleges may modify the above criteria, and interested students should contact their college offices for further information.

The College of Liberal Arts and Sciences has different eligibility requirements that are given in detail in the *LAS Student Handbook*.

Reserve Officers' Training Corps

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ARMY ROTC

Military training has been given at the Urbana-Champaign campus since the University opened in 1868. Originally mandatory for all male undergraduates under the land-grant charter, the program became entirely voluntary in 1964. The Army Reserve Officers' Training Corps is open to all university students, regardless of their academic major or level.

Program Description

The Army Reserve Officers' Training Corps is an elective program which provides adventure training, leadership experiences, and financial support to participating students. This is done through a consecutive series of elective courses, leadership laboratories, and field trips designed to prepare young men and women for leadership positions as officers in the United States Army. The leadership principles and management techniques presented, however, are equally applicable to success in any field. Financial support is provided by both state and federal scholarships.

Leadership Training

Classroom theory and practical application is presented in the following areas: motivation, decision making, leadership, followership, planning and organizing, meeting management, influencing others, public speaking, and teaching.

Adventure Training

Training in mountaineering techniques (rappelling), land navigation, survival, rifle marksmanship, and waterborne operations is given to every student. Selected students are given the opportunity to attend the Army parachute school, arctic operations school, helicopter operations school, or Ranger school.

Financial Support

There are two scholarship programs which provide support to Army ROTC students. Federal Scholarships are competitive scholarships available for four, three, or two years (depending on application time) and provide funds for tuition, books, fees, and a monthly support allowance. Illinois State Scholarships are also available and provide a waiver of all tuition costs. For additional scholarship information, see page 67. Over half of all Army ROTC students receive a scholarship of one type or the other. All third and fourth year cadets receive $100 per month while in the ROTC program.

Career Opportunities

The training and instruction is designed to prepare students to serve as officers in the U.S. Army. This may be full-time on active duty or part-time with the Army Reserve or National Guard. Service with the reserve forces allows pursuit of a civilian career while simultaneously serving the country as an officer. Approximately one-half of Army ROTC graduates pursue civilian careers and have discovered that their ROTC leadership training is an invaluable tool for success.

Program Options

Four year—the student attends one military science course each semester.
Three and one-half year—the student takes two military science courses during the first semester, then one course each semester thereafter.
Three year—the student takes two military science courses per semester during the first year, then one course each semester thereafter.

Two year—those students with prior military experience (junior ROTC, prior military service) may skip the first two years of Army ROTC and go right into the last two years. Also, students who are interested in the program, but were not involved in ROTC during their first two years of college may join during their last two years by attending a six-week basic camp during the summer. Attendance at this camp, for which the student receives over $600, is normally scheduled prior to the beginning of the last two years of ROTC, but may be scheduled between the third and fourth year.

Academic Program

The first and second year educational program in military science consists of Mil. S. 111, 113, 121, and 123. These one-hour courses are designed to give students a basic understanding of the national defense establishment, the role of the U.S. Army, military tactics, and military related skills.

The third and fourth years of military science, consisting of Mil. S. 231, 233, 241, and 243 are designed to develop the skills and attitudes vital to assuming leadership positions.

A leadership laboratory is required with each academic course. The leadership laboratory is one hour per week for the first two years and two hours per week the last two years. Instruction is provided in military skills in a framework that provides maximum opportunities to develop each student's self-confidence, decisiveness, and leadership potential.

Additional Information

For additional information regarding any of these programs, contact the Professor of Military Science, University of Illinois at Urbana-Champaign, 113 Armory, 505 East Armory Avenue, Champaign, IL 61820, telephone: (217) 333-1550.

NAVAL ROTC

The Naval ROTC Program is a professional educational opportunity in which students can earn a regular or a reserve commission in the United States Navy or Marine Corps while pursuing a baccalaureate degree. This professional foundation is then developed and broadened during active service as a commissioned officer after graduation and commissioning. Students may be enrolled in either the Navy Scholarship Program or the Navy College Program (nonscholarship). There are four-year programs for entering freshmen and two-year programs for students who have already completed part of their college education.

For scholarship students, no military obligation is incurred until the beginning of the sophomore year. College program students incur their military obligation at the commencement of their junior year. Naval science courses are also open to any student, upon consent of the Naval Science Department, even though not enrolled in either of these programs.

Four-Year, Navy-Marine Scholarship Program

The Navy-Marine Scholarship Program provides students with full tuition, fees, books, and a tax-free subsistence pay (currently $100 per month) for up to four years. Students in good standing and enrolled in a degree program which requires longer than four years to complete may apply for fifth year scholarship benefits with agreement to serve additional active service after commissioning or may take a leave of absence of up to a year to finish their baccalaureate degree. Upon graduation, scholarship students are commissioned in the regular U.S. Navy or U.S. Marine Corps and serve four years on active duty. Newly commissioned officers who qualify have the opportunity to continue their education toward an advanced degree.

Scholarship selection in national competition is based on the applicant's Scholastic Aptitude Test (SAT) or American College Testing (ACT) Program score, high school and college records, aptitude for naval service as judged by interviews, and by prescribed physical qualifications.

Scholarship students have an opportunity during the summer to practice what they have learned in the classroom. Three summer training periods of approximately four to six weeks each are taken by the students either at sea aboard a U.S. Navy vessel, at a naval air station, squadron, or amphibious base, or on board a nuclear submarine. Students who choose to enter the U.S. Marine Corps spend their last summer training period at the Marine Corps Officer Candidate School in Quantico, Virginia.

Four-Year, Navy-Marine College Program

Navy-Marine College Program students receive all required uniforms and naval science textbooks while enrolled, and a subsistence allowance (currently $100 per month) during their junior and senior years. If their degree program requires longer than four years to complete, they may apply for fifth year benefits of subsistence pay with agreement of additional active service after commissioning or may take a leave of absence of up to a year to finish their baccalaureate degree. Upon graduation, college program students are commissioned in the U.S. Naval or U.S. Marine Corps Reserve and serve three of their six-year reserve obligation on active duty.

A student may apply for admission to the college program through the professor of naval science, who makes the final selection. This selection is based on academic, physical, and military aptitude criteria. College program students also attend one summer training session, usually after their junior year.

College program students are eligible to be selected for the scholarship program through recommendation of the professor of naval science and decision by the chief of naval education and training. These students are also eligible to receive an Illinois State ROTC Scholarship (if a resident of this state) after at least one semester in the college program. These scholarships are awarded annually on a competitive basis and cover tuition only.

Two-Year College Program

This program provides a student with all required uniforms, naval science textbooks, and subsistence pay (currently $100 per month). Applicants should have two remaining years of study at the Urbana-Champaign campus. During the summer prior to their junior year, students attend a six-week course of military instruction at the Naval Science Institute, Newport, Rhode Island. Transportation costs and a salary are paid to the students. After successful completion, they join their contemporaries in the college program and are also eligible for appointment to scholarship status, background and academic performance providing. College program students participate in a four- to six-week summer at-sea training period between their junior and senior years, as do their scholarship counterparts.

Two-Year Scholarship Program

Acceptance into the NROTC Two-Year Scholarship Program training option guarantees a student a two-year NROTC scholarship. Summer training and other benefits, as well as NROTC training during the junior and senior years, are the same as that for the college and nuclear power two-year programs. Qualifications for this option include at least one year each of calculus and physics, with a C average or better. Overall GPA should be C or better with a preferred major of mathematics, chemistry, physics, or engineering.

State Navy ROTC Scholarship

For information regarding the state Navy ROTC scholarships, see page 67.

Requirements

In addition to mental, physical, and aptitude requirements, NROTC students must:

— Be citizens of the United States (women are eligible to apply for NROTC).

— Be seventeen years of age by September 1 of the year commencing enrollment and not more than twenty-one years of age by that date (those contemplating a bachelor's degree that requires five years to complete must be less than twenty years of age on June 30 of that year). If under eighteen, they must have the consent of their parents. Scholarship students must be less than twenty-five years of age on June 30 of the calendar year in which they are commissioned. College program students must meet identical requirements except that they must be less than twenty-seven-and-a-half years of age on June 30 of the calendar year in which commissioned.

— Have no moral obligations or personal convictions that will prevent them from executing the oath of office.

NROTC students have a two-hour laboratory course, N.S. 100, each week for which there is no credit, and also take the following naval science and University academic courses.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
N.S. 111 — Naval Orientation	2	N.S. 112 — Naval Ship Systems I	3
SECOND YEAR			
N.S. 121 — Naval Ship Systems II	3	N.S. 124 — Sea Power and Maritime Affairs	2
THIRD YEAR (NAVY)			
N.S. 231 — Naval Operations and Navigation I	3	N.S. 232 — Naval Operations and Navigation II	3
THIRD YEAR (MARINE)			
Hist. 281 — War, Military Institutions, and Society to 1815	3	Hist. 282 — War, Military Institutions, and Society since 1815	3
		N.S. 291 — Evolution of Warfare	3
FOURTH YEAR (NAVY)			
N.S. 241 — Naval Leadership and Management I or	2	N.S. 242 — Naval Leadership and Management II	2
B. Adm. 210/247 — Management and Organizational Behavior	3		
FOURTH YEAR (MARINE)			
N.S. 293 — History of Amphibious Warfare	3		

Each scholarship student's degree program must also include the following University courses (not required for Marine Corps option students):

	SEMESTERS
Calculus	2
Physics	2
Foreign language	1

Nontechnical curriculum scholarship students must also complete two technical electives, in addition to the requirements above, in physical science, chemistry, advanced mathematics, computer science, statistics, advanced physics, or other disciplines approved by the professor of naval science.

Marine option students are to complete one semester of political science as directed by the Marine Option Instructor.

College program (nonscholarship) students, who are not governed by federal scholarship requirements, must complete two semesters of college mathematics and physical science (one from each category) as a prerequisite to commissioning.

Additional Information

Further information regarding Naval ROTC may be obtained in person from or by writing to the Professor of Naval Science, University of Illinois at Urbana-Champaign, 236 Armory, 505 East Armory Street, Champaign, IL 61820, telephone (217) 333-1061/1062/0187.

AIR FORCE ROTC

The Air Force ROTC program at the University of Illinois at Urbana-Champaign offers the opportunity of a professional training program for those college men and women who desire to serve in the U.S. Air Force as commissioned officers. Air Force ROTC (AFROTC) offers both a four-year and two-year program leading to a commission as an Air Force officer. Four-year program students complete both the General Military Course and the Professional Officer Course. Two-year students complete only the Professional Officer Course.

General Military Course (GMC)

The first- and second-year educational program in Air Force Aerospace Studies consists of A.F.A.S. 111, 112, 121, and 122. These one-hour courses are designed to give students basic information on world military systems and the role of the U.S. Air Force in the defense of the free world. All required A.F.A.S. textbooks and uniforms are provided free. The GMC is open to all students at the University of Illinois without advance application and does not obligate students to the Air Force in any way.

Field Training

AFROTC Field Training is offered during the summer months at selected Air Force bases throughout the United States. Students in the four-year program participate in four weeks of field training, usually between their sophomore and junior years. Students applying for entry into the two-year program must successfully complete six weeks of field training prior to enrollment in the Professional Officer Course. The Air Force pays all expenses associated with field training.

The major areas of study in the four-week field training program include junior officer training, aircraft and air crew orientation, career orientation, survival training, base functions and Air Force environment, and physical training. The major areas of study included in the six-week field training program are essentially the same as those conducted at four-week field training plus the General Military Course including leadership laboratory.

Professional Officer Course (POC)

The third and fourth years of Air Force Aerospace Studies instruction, consisting of A.F.A.S. 231, 232, 241, and 242 are designed to develop skills and attitudes vital to the career professional officer. Students completing the POC are commissioned as officers in the United States Air Force upon college graduation. All students in the POC receive a nontaxable subsistence allowance of $100 per month during the two-semester academic year. Students wanting to enter the POC in nonflying categories should apply early in the spring semester in order to begin this course of study in the following fall semester. Students applying for pilot or navigator categories should apply in the fall semester the year prior to entering the POC. Final selection of students rests with the professor of aerospace studies. Each member of the POC must:

— Be a citizen of the United States.
— Be a full-time student in the University.
— Have at least two years remaining at the University as an undergraduate and/or graduate student upon entry to the program.
— Pass an Air Force physical exam.
— Be able to complete all requirements for commissioning before reaching age 26½ for flying candidates or age 30 for nonflying candidates.
— Complete summer field training.
— Achieve qualifying scores on the Air Force Officer Qualifying Test.
— Complete Rhetoric 105 or its equivalent prior to POC entry.
— Execute a written agreement with the U.S. government to complete the POC, attend summer field training at the time specified, accept a reserve commission in the U.S. Air Force upon graduation, and to serve four years on active duty after graduation. Pilot candidates agree to serve eight years and navigators five years active duty after completion of flying training.
— Enlist in the Air Force Obligated Reserve Section; this enlistment is terminated upon acceptance of a commission.
—Possess and maintain a quality grade-point average meeting the requirements of the student's college.
— Not be a conscientious objector.

Leadership Laboratory

Leadership Laboratory (A.F.A.S. 102) is required with each academic course in both the GMC and the POC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. Leadership Laboratory involves a study of Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of an Air Force junior officer. Students develop their leadership potential in a practical, supervised laboratory, which typically includes field trips to Air Force installations throughout the U.S.

AFROTC College Scholarship Program

This program provides scholarships to selected students through participation in the Air Force ROTC. During their participation in AFROTC at the University of Illinois at Urbana-Champaign, students receive $100 per month along with paid tuition, fees, laboratory expenses, and required textbooks.

In order to be eligible for this scholarship, students must:
— Be citizens of the United States.
— Be at least seventeen years of age on the date of enrollment and under twenty-five years of age on June 30 of the estimated year of commissioning.
— Pass a physical exam administered by a physician of the United States Air Force.
— Be selected by a board of Air Force officers.
— Have no moral objections or personal convictions that will prevent bearing arms and supporting and defending the Constitution of the United States against all enemies, foreign and domestic. Applicants must not be conscientious objectors.
— Achieve a qualifying score on the Air Force Officer Qualifying Test.
— Maintain a quality grade-point average.
— Complete at least one course in a foreign language before commissioning.
— Enlist in the Air Force Reserve. This enlistment is terminated once commissioned as a second lieutenant in the U.S. Air Force.
— Execute a written contract with the U.S. government agreeing to complete the AFROTC program, to attend summer field training at the specified time, to accept a reserve commission in the Air Force upon graduation, and to serve four years on active duty after graduation.

High school students should apply for this scholarship late in their junior year or early in their senior year. High school students may get applications by asking their guidance counselor or by writing or telephoning the University of Illinois AFROTC detachment at (217) 333-1927. Completed applications must be received no later than December 1 of the year before the student intends to enter college.

For students already enrolled in the University of Illinois at Urbana-Champaign, 3½-, 3-, 2½-, and 2-year scholarships are available. Applications can be submitted through the AFROTC Administration Office, 223 Armory.

STATE AIR FORCE ROTC SCHOLARSHIPS

For information regarding State of Illinois AFROTC Scholarships, see page 67.

Additional Information

Further inquiry concerning the AFROTC program at the University should be directed to AFROTC, Detachment 190, University of Illinois at Urbana-Champaign, 223 Armory, 505 East Armory Avenue, Champaign, IL 61820.

Council on Teacher Education

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Five colleges of the University of Illinois at Urbana-Champaign offer bachelor's degree programs in teacher education. These five colleges are the Colleges of Agriculture, Applied Life Studies, Education, Fine and Applied Arts, and Liberal Arts and Sciences. The Council on Teacher Education is responsible for the coordination of teacher education curricula at the Urbana-Champaign campus and for liaison between the campus and state certification authorities. The offices of the council are located in 130 Education Building.

Students may consult their teacher education adviser or the certification officer of the Council on Teacher Education, 130 Education Building, for additional information concerning academic regulations and other policies affecting teacher education. Consult the executive director of the council for information concerning the "Grievance Policy and Procedure for Students in Teacher and Administrative Certification Programs under the Purview of the Council on Teacher Education."

TEACHER EDUCATION CURRICULA

Students seeking certification must complete the requirements of their chosen curriculum and the Council on Teacher Education. Teacher education curricula and the colleges which offer them are listed below. All teacher education curricula have been approved by the National Council for the Accreditation of Teacher Education (NCATE) through 1991 and by the Illinois State Board of Education through 1986. Extension of State Board approval through 1996 is pending until completion of the mandated tenth year review.

Students are advised that certification requirements may be altered at any time by the State Teacher Certification Board or the legislature. In such cases, students may be compelled to satisfy the new requirements to qualify for the University's recommendation for certification.

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If the chosen curriculum requires a second teaching field, it must be selected from the list of approved teacher education minors below. In the presence of compelling circumstances, students may consult with appropriate faculty to propose unique minors. Such proposals and their rationale must be submitted by petition for the college's approval. Students should be aware that the state recognizes minor teaching fields which are not listed below, and does not recognize some which are. Students in curricula which do not require a minor and students seeking to complete more than one minor may obtain information about state minimum requirements from the certification officer of the Council on Teacher Education, 130 Education Building.

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Rhetoric....303
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ADMISSION REQUIREMENTS

Applicants to teacher education curricula must meet the admission requirements of the colleges and departments offering the chosen curricula. General admission requirements are presented in the Admissions Chart which begins on page 10. Students whose cumulative grade-point average is less than the stated minimum may apply for admission but will be considered individually on a petition basis if enrollment vacanices exist in the college and curriculum to which admission is being sought. If admitted, such students may be placed on provisional status by the Council on Teacher Education.

In compliance with recent state legislation, all students entering teacher education programs must demonstrate basic proficiency in reading, mathematics, and language arts. Failure to meet this requirement will jeopardize the student's enrollment in a teacher education curriculum. Compliance with this mandate is monitored by the Council on Teacher Education. Students should consult their adviser or the certification officer for further information.

REQUIREMENTS FOR CONTINUATION IN TEACHER EDUCATION

To be eligible for continuation in teacher education, candidates must have a University of Illinois and cumulative grade-point average of 3.5 (A = 5.0) or higher. In addition, candidates must meet grade-point requirements specific to their programs. The Council on Teacher Education reviews each student's academic progress every semester. Students who do not meet the grade-point average criterion will receive a warning letter from the council advising them that their entry into student teaching and their receiving a recommendation from the University for certification are at risk. Students will be directed to their college dean for more information.

In addition, students are screened just prior to student teaching and just after its completion by committees of faculty who assess the overall record of their performance in the program. It is common knowledge that teaching effectiveness is influenced not only by academic proficiency, but also by the personal characteristics and health of the teacher. Recognizing the importance of these personal factors, program faculty take them into account in making judgments of students' progress in the program. In addition, counseling and medical services are available for all students. Students wishing additional information regarding these services

may make an appointment by calling the director of student teaching of the Council on Teacher Education (217) 333-4898, or by visiting 130 Education Building.

Since it is essential that counseling and medical services be offered as soon as the need becomes apparent, teacher education advisers and faculty are asked to participate in this effort. Staff members are invited to recommend for assistance or examination any students about whom concern is felt. Students who are recommended for assistance or examination will receive a written request to make an appointment to discuss matters in which a counselor or physician may be of assistance. Students who receive a letter of this nature must respond to the request as a requirement of the Council on Teacher Education. Failure to respond will jeopardize the continuation of students in teacher education. During the appointment, students will be informed of the services available on this campus. The use of these services will usually be optional. In exceptional cases, however, students may be required to satisfactorily complete a mental health or physical examination with one of the campus services. Such referrals are mandatory for students who wish to continue in teacher education.

STUDENT TEACHING

Students should apply for tentative student teaching assignments on completion of 55 semester hours of credit. Student teaching application forms may be obtained from the appropriate student teaching office. (Referral to the appropriate office may be obtained by contacting the central Office of Student Teaching, 130 Education Building, 333-4898.) Normally, after earning 55 semester hours, each eligible student will receive an invitation to apply for a student teaching assignment. Students who are eligible to apply for assignment, but who have not received an invitation to do so, should contact the appropriate office of student teaching early in the fall semester. Students who will not be on campus during the fall semester, but who expect to enroll in educational practice (student teaching) during the next school year, should secure application forms from their office of student teaching before they leave campus. The latest date for any currently enrolled, eligible student to apply for a student teaching assignment for the next academic year is the end of the second week in December. Students who apply after this date cannot be guaranteed a student teaching assignment during the next academic year.

On completion of 75 or more semester hours, students who have submitted an application will receive student teaching assignments pending verification that they: (1) have completed methods courses and 100 hours of early field experience, (2) have a University of Illinois and cumulative grade-point average of 3.5 (A = 5.0) or higher, (3) have the minimum grade-point average required for their program, and (4) have received recommendations for placement in student teaching from the appropriate faculty committee.

Only those students officially registered in teacher education curricula are eligible for student teaching. Students who are on academic or disciplinary probation will not be permitted to student teach. The Council on Teacher Education reserves the right to deny student teaching placement to students whose performance in course work or in early field experiences has been judged to be unsatisfactory by professional standards, including scholarship, ethics, and responsibility, as determined by faculty and staff in consultation with cooperating school personnel. Satisfactory performance is not based solely on grades.

Students in teacher education should anticipate and plan for student teaching assignments off campus. For most students, an additional expense will be incurred during the semester in which student teaching is scheduled. Only a limited number of student teaching assignments are available in the vicinity of the campus. Students will be assigned to local schools as student teachers only in cases of special need. In such cases, attempts will be made to place students locally; however, this is not always possible due to the limited number of available sites.

Students who wish to complete student teaching through another university, yet receive a University of Illinois degree and recommendation for certification, must secure the prior approval of their adviser, college, and the Council on Teacher Education via petition.

TEACHER CERTIFICATION

General Requirements

A student who completes all the course work and other requirements in a program approved for purposes of certification by the Illinois State Board of Education is entitled to receive the

recommendation of the University for the appropriate certificate providing the candidate: (1) is a U.S. citizen (or has filed a Declaration of Intention to become a citizen), is of good character, good health, and is at least nineteen years of age; (2) is recommended for certification by his or her program coordinator or department chair based on criteria approved by the council; (3) has a University of Illinois and cumulative grade-point average of 3.5 (A = 5.0) or higher; and (4) has the minimum grade-point average required in his or her program.

Please note that, although a student may be denied recommendation for certification, he or she may be granted a degree. A student who believes that his or her recommendation for certification has been withheld unjustly may seek redress through the grievance policies established by the Council on Teacher Education. A copy of the policy and the allied procedures may be obtained from the executive director of the Council on Teacher Education, 130 Education Building.

Students who enroll in advanced foreign language, chemistry, or mathematics courses as a result of performance on a placement examination are often eligible to receive prerequisite credit for teacher certification purposes only. Those who are qualified to receive prerequisite credit, and who have declared one of these areas as their major or minor, should consult their teacher education adviser prior to graduation.

Special Education Requirement

Section 21-2a of *The School Code of Illinois* requires that all individuals applying for teacher certification after September 1, 1981, successfully complete course work which includes "instruction on the psychology of the exceptional child, the identification of the exceptional child . . . and methods of instruction for the exceptional child, including, but not limited to the learning disabled . . ." Students should contact their advisers to determine the appropriate course or courses to fulfill this requirement.

Teacher Certification Examinations

Effective July 1, 1988, all applicants for certification as teachers, school administrators, and school service personnel must pass examinations offered by the Illinois State Board of Education as a condition for certification. Applicants must pass an examination in basic skills (reading, writing, grammar and mathematics) and a separate examination in their major area. For further information, contact the certification officer of the Council on Teacher Education at (217) 333-7195.

Application Information

Questions concerning teacher certification should be directed to the Council on Teacher Education, University of Illinois at Urbana-Champaign, 130 Education Building, 1310 South Sixth Street, Champaign, IL 61820, telephone (217) 333-7195.

Students who wish to teach in the city of Chicago should write to the Department of Personnel, 1819 West Pershing Road, Chicago, IL 60609. Individuals who intend to teach in Chicago are urged to apply for both an Illinois and Chicago certificate. After July 1, 1988, Chicago will no longer maintain separate certification. Individuals teaching in the city will need to be state certified.

Time Limit on Certification

Because certification requirements are subject to change due to new mandates from the Illinois State Teacher Certification Board and the Illinois General Assembly, the University of Illinois is not able to guarantee a recommendation for certification to those who apply for certification later than one year after graduation from an approved program. Students completing approved programs are urged to apply for certification during their last term on campus.

Background Investigation on Applicants for Employment

All applicants for employment in a school district in Illinois are required to authorize the employing school district to initiate a criminal background check. School districts may employ persons only after a background check has been initiated and may not knowingly employ a person who has been convicted of a felony or attempting to commit certain offenses enumerated

in *The School Code of Illinois*. Although the University of Illinois plays no role in this criminal background check, students planning to teach in Illinois should be aware of this legislated requirement.

EDUCATIONAL PLACEMENT

The University's Educational Placement Office assists in the placement and career planning of students and alumni who are seeking education-related employment in schools, colleges and universities, state and federal agencies, and other settings. Services offered include the following: (1) the storage and distribution of educational placement files for individuals who have completed at least one course in any department or college at the University of Illinois at Urbana-Champaign; (2) the publication of a weekly *Job Vacancy Bulletin*, which lists over 18,000 job vacancies sent to the office annually; (3) placement counselors who are available by appointment to provide career information and guidance to individuals and groups; (4) seminars on topics related to the job search in education; (5) a career information center containing information about careers in education; and (6) on-campus interviews with school and college recruiters from Illinois and other states. Individuals seeking education-related employment information—students, faculty, administrators, alumni, and others—are welcome to call (217) 333-0740, write, or visit the Educational Placement Office, 140 Education Building.

COLLEGES AND OTHER ACADEMIC UNITS

College of Agriculture (Including School of Human Resources and Family Studies)

104 Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801

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Situated in one of the world's richest agricultural regions, the College of Agriculture provides an ideal setting for professional education and career preparation in the agricultural and food sciences. As the land-grant agricultural institution for the State of Illinois, the college traces its heritage of public service to the enrollment of the first agriculture student at the Illinois Industrial University in 1868. Undergraduate students in agriculture can choose from among thirty-two curricula, majors, and study options in eight college departments, with more than 350 courses available in a broad range of agricultural and agriculture-related disciplines. Individualized programs of study may be designed to meet the student's particular educational needs, academic interests, and career goals.

Extensive farms, field sites, experimental and demonstration plots, greenhouses, laboratories, and other educational and research facilities are conveniently located on the Urbana-Champaign campus, affording excellent opportunities for agriculture students to gain "hands on" experience in their particular areas of study. The college maintains a large collection of books, periodicals, audiovisuals, and other educational resources in its Agriculture Library; and microcomputers, data-processing equipment, and a campus-wide mainframe computer system also are available to supplement and enrich classroom studies.

The College of Agriculture is nationally and internationally recognized for its distinguished faculty, innovative programs of study, and pioneering achievements in teaching, basic and applied research, extension education, and international agriculture. Under the long-range Food for Century III program for food-production research, the college has received nearly $60 million since 1978 for the construction of ultramodern laboratories, classrooms, greenhouses, and field facilities in the agricultural and food sciences. State-of-the-art equipment and laboratories are available for studies in such "high tech" areas as genetic engineering of plant and animal species, plant

molecular biology, plant tissue and cell culture, biomass production and utilization, alternative fuels and energy sources, post-harvest technology, environmental management, and computer applications to agriculture and the food industry. Agriculture faculty members combine extensive professional background in their respective areas of specialization with additional experience in business, industry, government, and higher education.

The School of Human Resources and Family Studies, which is a major component in the College of Agriculture, offers career preparation and professional or preprofessional education in several biological, physical, and social science fields. The school traces its long history of education and public service to the establishment of the nation's first university home economics curriculum in 1873. Undergraduate students enrolled in the school can choose from 13 curricula or study options and more than 125 courses available in five program areas: Foods and Nutrition; Family and Consumer Economics; Human Development and Family Ecology; Textiles, Apparel, and Interior Design; and Home Economics Education. Excellent laboratory facilities, classrooms, computing and data-processing equipment, and library resources are centrally located in Bevier Hall and the Child Development Laboratory, providing opportunities for both theoretical training and practical experience. The school's faculty members have received numerous recognitions and awards for outstanding achievements in education and research and are dedicated to high-quality undergraduate instruction.

DEPARTMENTS, OFFICES, AND CURRICULA

Agriculture

The Office of Agricultural Communications and Extension Education offers courses in agricultural communications media and methods, information program planning, rural-urban communications, teaching of college-level agriculture, extension education, extension communications management, and other topics. Students in the agricultural communications curriculum prepare for careers in agricultural writing and editing, radio and television broadcasting, advertising and marketing communications, public relations, and photography. Students in extension education prepare for careers in the Cooperative Extension Service.

The Department of Agricultural Economics offers courses in farm management, rural real estate appraisal, land and natural resource products, commodity futures markets, agribusiness management, agricultural and food policy, statistics and quantitative analysis, international agricultural development and trade, rural sociology, agricultural law, and farm taxation.

The Department of Agricultural Engineering offers courses in agricultural engineering and agricultural mechanization which cover the principles of engineering as applied to agriculture, including problems in the areas of soil and water control, farm buildings and housing, field machinery, tractors, crop and food processing, and farmstead mechanization. Instruction in farm shop practices and techniques is offered.

The Department of Agronomy offers courses in both crops and soils. Instruction includes courses in plant breeding and genetics; crop evaluation; crop protection; production and evaluation of cereals, corn, soybeans, and forage crops; crop physiology; design of field experiments; weeds and their control; the origin and development of soils; land appraisals; soil conservation; soil chemistry; soil physics; soil fertility and fertilizer use; soil management; and soil microbiology. A special option in crop protection is available to students interested in a broad comprehensive approach to controlling diseases, weeds, and insects, plus managing cultural practices to maximize yields.

The Department of Animal Sciences offers courses in the areas of animal evaluation, behavior, genetics, nutrition, physiology and meat science, and other courses related to the application of scientific principles to animal agriculture. Courses involve studies with beef and dairy cattle,

horses, poultry, sheep, swine, and companion animals. The major is available with options in general animal science, industrial animal science, or companion animal biology.

The Department of Food Science offers courses in the application of biology, engineering, chemistry, physics, microbiology, and nutrition to the processing, formulation, packaging, and distribution of food. Two undergraduate curricula, food science and food industry, are offered.

The Department of Forestry curriculum offers options in forest science and wood products. The forest science option prepares students for all phases of the management of forest properties (private or public, large or small) for the production of valuable wood products and for watershed protection, wildlife habitat, recreational enjoyment, or other benefits. The wood products option is concerned with the properties of wood as a raw material and its manufacture into useful products.

Courses in the Department of Horticulture provide instruction in pomology, vegetable crops, floriculture and ornamental horticulture, turf and landscape horticulture, and in subjects common to all these divisions, such as plant propagation, plant genetics, plant materials, plant anatomy and morphology, and the physiology and ecology of horticulture plants, as well as special problems in experimental horticulture.

The courses offered by the Department of Plant Pathology are designed to prepare students for graduate work in plant pathology and to provide supplementary training for students specializing in related fields such as agronomy, food science, forestry, horticulture, and plant protection.

A program of agricultural education is offered jointly by the College of Agriculture and the College of Education. Students may follow one or more of the five specialty options—agricultural production, agricultural mechanization, agricultural supply and products, horticulture, and agricultural resources and forestry. Upon successful completion of an option in the curriculum in agricultural education, students are qualified for an Illinois secondary teaching certificate and for employment in the Cooperative Extension Service and in many agri-business fields.

SCHOOL OF HUMAN RESOURCES AND FAMILY STUDIES

The School of Human Resources and Family Studes is in the College of Agriculture. At the time it was established in 1974, the school incorporated the former Deparment of Home Economics which had been in existence since 1874. Today, the school contains four divisions and the Home Economics Education Unit. The divisions and the programs offered by each are:

Family and Consumer Economics — Consumer Economics, General Home Economics
Foods and Nutrition — Dietetics, Foods and Nutrition, Foods in Business, Institution Management, Restaurant Management
Human Development and Family Ecology — Human Development and Family Ecology
Textiles, Clothing, and Interior Design — Textiles and Apparel, Marketing of Textiles and Apparel, Interior Design
Vocational Home Economics Education Unit — Home Economics Education

The unique focus of the school is the study, within an interdisciplinary context, of vital issues affecting the health and well-being of individuals and families. The mission of the school is to generate and provide knowledge so that people may both shape and achieve the greatest benefits from their environment under conditions of continuing social, economic, physical, biological, and technological change.

The mission is accomplished by (1) identifying critical problems of concern to individuals and families at local, state, national, and international levels; (2) generating knowledge through basic and applied research to help individuals and families live more healthy, productive, and personally satisfying lives; (3) preparing individuals for professional positions and leadership in the public and private sectors; and (4) providing educational programs to families through the Cooperative Extension Service. The school's mission is reflected in and accomplished by the teaching, research, and extension programs of its faculty in the four divisions and in the Home Economics Education Unit.

ADMISSION REQUIREMENTS

Besides meeting the general admission requirements of the University, students entering the College of Agriculture as freshmen must have taken, prior to entry, the subjects prescribed in the Admissions Chart on page 10. It is highly recommended that prospective students take four units of English and one or more additional units of mathematics beyond algebra and plane geometry. At least two and preferably three units of science are desirable (biology, chemistry, and physics), and two units of social science are recommended.

Applicants for freshman admission are evaluated on the basis of their ACT score and high school percentile rank. A portion of the applicants are required to submit a Professional Interest Statement as well. Detailed information may be obtained in the *Admissions Information* brochure contained in the admission application packet.

Applicants who have earned 60 semester hours of baccalaureate credit at another institution may be considered for transfer admission. Such applicants are evaluated on the basis of their transfer grade-point average. Transfer applicants into the Agricultural Science curriculum need a 4.00 transfer grade-point average while applicants to Agricultural Education, Home Economics Education, and Soil Science curriculum require a 3.5 minimum. In recent years, applicants to all other curricula have been admitted at the 3.25 campus minimum level for transfer students.

SCHOLARSHIP INFORMATION

The College of Agriculture recognizes entering students who have outstanding scholastic records with nonfinancial need–based scholarship assistance. Entering freshmen are eligible to compete for $2,500 Jonathan Baldwin Turner Scholarships. Students who rank in the upper 10 percent of their high school class at the end of the junior year or who have an ACT composite score of 26 or better are encouraged to submit a scholarship application. Interviews are conducted *between* the junior and senior year in high school. Transfer students with the most outstanding academic records at their institution of previous attendance are recognized each year with $500 transfer student scholarships. Additional information and application forms for both programs may be obtained from the Office of Resident Instruction, 104 Mumford Hall, 1301 West Gregory Drive, Urbana, IL 61801.

Additional scholarships within the college, to recognize academic merit, are awarded to continuing students based on their record earned at the University of Illinois at Urbana-Champaign. See page 59 for a description of financial assistance available based on demonstrated financial need.

GRADUATION REQUIREMENTS

The number of hours required for graduation varies between 120 and 130 for all curricula within the college beginning on page 74. Included in the total must be all courses prescribed in the given curriculum and a sufficient number of electives to obtain the total number. Students should consult the *Agriculture* or *Human Resources and Family Studies Student Handbooks* for a listing of credit restrictions which apply in evaluating elective credits toward graduation.

Students who have transferred to the University from other educational institutions and who are candidates for a Bachelor of Science degree from the College of Agriculture must complete at least half of the required Agriculture or Human Resources and Family Studies semester hours in residence. Transfer students from a four-year college must also complete their senior year, not less than 30 semester hours, in residence at the University. Transfers from a community college must complete at least 60 semester hours at a senior college and at least the last 30 semester hours at the University of Illinois at Urbana-Champaign.

Each candidate for graduation must have a grade-point average of not less than 3.0 (A = 5.0), including grades in courses transferred from other institutions, and a grade-point average of not less than 3.0 in all courses taken at the University of Illinois at Urbana-Champaign.

STATEMENT ON ACADEMIC PROGRESS

In addition to maintaining prescribed academic performance levels, students in the College of Agriculture are also expected to make progress in courses required in the student's academic major. Each student is required to have at least one College of Agriculture course in the

program each semester, except where the specific curriculum does not make that desirable. Students not complying will be encumbered from additional enrollment.

GENERAL EDUCATION REQUIREMENTS

All University students must demonstrate proficiency in the use of English (see page 18). All College of Agriculture students must complete a minimum number of hours in natural sciences, humanities, and social sciences. In many of the curricula, the requirements for these three areas are fulfilled by completing courses prescribed for the curriculum. Where specific courses are not prescribed, students select from a group of courses that have been identified by the College of Agriculture as fulfilling the requirements. Listed below are *examples* of departments offering courses in the various categories. Students should consult the *Agriculture* or *Human Resources and Family Studies Student Handbooks* for the listings of specific courses which will fulfill the College of Agriculture requirement in each area.

Natural Sciences:
Physical: Chemistry, geology, mathematics, physics
Biological: Biology, microbiology, physiology
Social Sciences: Economics, history, psychology, political science, sociology
Humanities: Art, literature, music, philosophy

Course Placement: Mathematics, Chemistry, English

All students admitted to the College of Agriculture are required to complete mathematics, chemistry, and English placement tests during the precollege testing program.

Mathematics: Students in a curriculum with a mathematics requirement begin in Mathematics 111 or 112 (Algebra) unless exemption is obtained based on performance on the Mathematics Placement Test. Such students may begin in Math. 120 (Calculus) or 124 (Finite Math).

Chemistry: To take Chemistry 101, a student must have a satisfactory score on the Chemistry Placement Test and an exemption from, or credit in, Math. 111 or 112; students who have not had high school chemistry, or who do not score high enough on the Chemistry Placement Test, must take Chemistry 100 before taking Chemistry 101.

English: Minimum English requirements in most College of Agriculture curricula include a semester of composition and a semester of public speaking. Students may fulfill the requirements by completing Rhetoric 105—Principles of Composition and Speech Communication 101 — Principles of Effective Speaking; or Speech Communication 111 and 112 — Verbal Communication.

Curricula

CORE CURRICULUM IN AGRICULTURE

For the degree of Bachelor of Science in Agriculture

This is a core curriculum in that it provides for a common core program for the first two years. Students who desire an agricultural curricula but who are uncertain as to a specific major are encouraged to select this curricula. All core students must select a major by the start of their junior year. The core curriculum is similar to the first two years of the program for students majoring in Agricultural Economics, Agricultural Mechanization, Agronomy, Animal Science, Dairy Science, General Agriculture, and Horticulture. Students interested in a specialized agricultural curricula (see page 106 through page 118) are encouraged to enter directly into that program as freshmen.

The core program includes a foundation of general education courses. In addition, the student must choose from among several introductory agriculture courses. These are used to fulfill a graduation requirement but also provide an excellent opportunity for students to explore the various curricular options within the college in preparation for selecting a specific major.

Upon completion of all requirements of this curriculum, with an approved major and a minimum of 126 hours of credit, the student is awarded the degree of Bachelor of Science in Agriculture.

Prescribed Courses

	HOURS
Rhet. 105 or 108 — Composition (see English, page 99)	4
Sp. Com. 101 — Principles of Effective Speaking	3
Agr. 100 — Agriculture in Modern Society[1]	1
Agriculture core courses: Three as listed below and as required for student's major	9-10
Biological sciences: Two or more of the following areas as required by the student's major: Pl. Bio. 100 — Plant Biology; or Mcbio. 100 — Introductory Microbiology, and Mcbio. 101 — Introductory Experimental Microbiology; or Biol. 104 — Animal Biology	8-9
Chem. 101 — General Chemistry (see Chemistry, page 99)	4
Chem. 102 — General Chemistry, or Chem. 103 — General Chemistry: organic chemical studies	4
Math. 111 — Algebra, or Math. 112 — College Algebra, or exemption by Mathematics Placement Test	5-3-0
Math. 114 — Plane Trigonometry, or Math. 124 — Introductory Analysis for Social Scientists; or one course from computer science or statistics as required for student's major; or exemption from Math. 114 by the Mathematics Placement Test	0-4
Econ 101 — Introduction to Economics	4
Social science courses (see page 99)	6
Humanities courses (see page 99)	6

[1] Agr. 100 — Agriculture in Modern Society, 1 hour, is required for entering freshmen only. Transfer students are exempt.

Agriculture Core Courses

In addition to Agr. 100, one course from three of the four areas listed below must be completed by each student in this curriculum.

	HOURS
Agricultural economics Ag. Ec. 100 — Introductory Agricultural Economics	3
Agricultural mechanization and food science Ag. M. 100 — Engineering Applications in Agriculture, or F.S. 101 — Food in Modern Society	3
Animal sciences An. S. 100 — Introduction to Animal Science, or D.S. 100 — Introduction to Dairy Production	4-3
Plant and soil sciences Soils 101 — Introductory Soils, or Agron. 121 — Principles of Field Crop Science, or For. 101 — Introduction to Forestry, or Hort. 100 — Introductory Horticulture	4-3

First-Year Program

Courses must be chosen from those listed on page 99 and must include one agriculture core course each semester in addition to Agr. 100.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Agricultural core course	3-4
Biological science	4
Mathematics or chemistry	2-5
Rhet. 105 — Composition	4
Total	14-18

SECOND SEMESTER	HOURS
Agricultural core course	3-4
Biological science	4-5
Chemistry	4
Sp. Com. 101 — Principles of Effective Speaking	3
Total	14-16

SECOND YEAR

The student will, in consultation with an adviser, select from those courses listed as prescribed and appropriate to his or her intended major in this curriculum.

THIRD AND FOURTH YEARS

For the third and fourth years, see the requirements of the approved major. In addition to the prescribed courses listed above, the requirements include completion of: (1) All prescribed courses listed for the major. (2) Additional courses as required to give 40 hours in agriculture. (3) Sufficient open electives to bring the total hours to 126.

Major in Agricultural Economics (Including Rural Sociology)

The major and options in agricultural economics are to prepare students for employment in positions requiring economic decision making in agriculture and related occupations, for effective rural group leadership, and for graduate work. In declaring a major in agricultural economics, each student is required to choose one of the following options: farm management,

agricultural marketing, general agricultural economics, or rural sociology. For common core requirements, see Core Curriculum in Agriculture on page 99.

FARM MANAGEMENT OPTION	HOURS
Prescribed courses in agriculture	
Ag. Ec. 100 — Introductory Agricultural Economics	3
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 324 — Decision Making for Farm Operators	2-3
Ag. Ec. 325 — Economics of Agricultural Production, Ag. Ed. 223 — Farm Business Accounting and Organization, or Ag. Ec. 312 — Rural Real Estate Appraisal	3
Soils 101 — Introductory Soils	4
Additional agricultural economics courses	7-8
Elective courses in agriculture to bring total agriculture courses to a minimum of	40
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I, or a course in statistics	3-4
Humanities (see page 99)	6
Social sciences: 9 hours from two departments (see page 99). Must include Econ. 101 — Introduction to Economics, and Econ. 300 — Intermediate Microeconomic Theory	9
Core courses and open electives to bring total hours to	126

AGRICULTURAL MARKETING OPTION	HOURS
Prescribed courses in agriculture	
Ag. Ec. 100 — Introductory Agricultural Economics	3
Ag. Ec. 230 — Marketing of Agricultural Products	3
Six hours from the following:	
Ag. Ec. 331 — Grain Marketing	3
Ag. Ec. 332 — Livestock and Meat Marketing	3
Ag. Ec. 335 — Food Marketing	4
Ag. Ec. 338 — Agribusiness Management	3
Additional agricultural economics courses	8
Elective courses in agriculture to bring total agriculture courses to a minimum of	40
Humanities (see page 99)	6
Social sciences: 9 hours from two departments (see page 99). Must include Econ. 101 — Introduction to Economics, and Econ. 300 — Intermediate Microeconomic Theory	9
Prescribed nonagriculture courses	
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I	3
One course from speech communications, journalism, or business and technical writing	2-3
Statistics	3-4
Core courses and open electives to bring total hours to	126

GENERAL AGRICULTURAL ECONOMICS OPTION	HOURS
Prescribed courses in agriculture	
Ag. Ec. 100 — Introductory Agricultural Economics	3
Nine hours from the following:	
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 230 — Marketing of Agrucultural Products	3
Ag. Ec. 261 — Agricultural Economic Statistics	3
Ag. Ec. 302 — Agricultural Finance	3
Ag. Ec. 303 — Agricultural Law	3
Ag. Ec. 305 — Agricultural Policies and Programs	3
Ag. Ec. 318 — Land Economics	3
Ag. Ec. 342 — Agricultural Prices	3
Additional agricultural economics course	8
Elective courses in agriculture to bring total agriculture courses to a minimum of	40
Humanities (see page 99)	6
Social sciences: 9 hours from two departments (see page 99). Must include Econ. 101 — Introduction to Economics, and Econ. 300 — Intermediate Microeconomic Theory	9
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I, or a course in statistics	3
Core courses and open electives to bring total hours to	126

RURAL SOCIOLOGY OPTION	HOURS
Prescribed courses in agriculture	
Ag. Ec. 100 — Introductory Agricultural Economics	3
R. Soc. 277 — Rural Social Change	3
R. Soc. 346 — Energy, Environment, and Society	3
Additional rural sociology or agricultural economics courses	11
Elective courses in agriculture to bring total agriculture courses to a minimum of	40
Humanities (see page 99)	6
Social sciences: 9 hours from two departments (see page 99). Must include Econ. 101 — Introduction to Economics, and 2 approved 200- or 300-level sociology courses	9
Core courses and open electives to bring total hours to	126

Major in Agricultural Mechanization — Industrial Option

For students who are interested in emphasis in the areas of farm structures, conservation, farm power and farm machinery, in preparation for work with service organizations, retail dealers, power suppliers, contractors, or farm management companies.

For common core requirements, see Core Curriculum in Agriculture on page 99. Other courses required for this major are:

	HOURS
Prescribed courses in agriculture	
Ag. Ec. 220 — Farm Management	3-4
Ag. M. 100 — Engineering Applications in Agriculture	3
Ag. M. 299 — Agricultural Mechanization Seminar	1
Soils 101 — Introductory Soils	4
Agron. 121 — Principles of Field Crop Science	4
Fifteen hours from the following: Ag. M. 200 — Agricultural Mechanics Shop: Construction Technology; Ag. M. 201 — Agricultural Mechanics Shop: Electrical and Metal Work; Ag. M. 221 — Farm Power and Machinery Management; Ag. M. 241 — Farm Tractor Power; Ag. M. 252 — Mechanics of Soil and Water Conservation; Ag. M. 272 — Farm Buildings; Ag. M. 281 — Grain Drying, Handling, and Storage; Ag. M. 300 — Special Problems; Ag. M. 331 — Farm Machinery Technology; Ag. M. 333 — Agricultural Chemical Application Systems; Ag. M. 361 — Development and Function of Family Housing; Ag. M. 372 — Livestock Waste Management; Ag. M. 381 — Electro-Mechanical Agricultural Systems	
Elective courses in agriculture to bring total agriculture courses to a minimum of	40
Humanities (see page 99)	6
Social sciences: A minimum of 9 hours from two departments (see page 99) including Econ. 101 — Introduction to Economics	9
Other prescribed courses:	
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I	3
Math. 114 — Plane Trigonometry	2
Phycs. 101 — General Physics (Mechanics, Heat, and Sound)	5
Phycs. 102 — General Physics (Light, Electricity, and Magnetism) if Chem. 102 is not taken	5
Fifteen hours from the following: Ag. Ec. 338 — Agribusiness Management; B. Adm. 202 — Principles of Marketing; B. Adm. 210 — Management and Organizational Behavior; B. Adm. 212 — Retail Management; B. Adm. 247 — Introduction to Management, *or* Psych. 245 — Industrial Organizational Psychology; B. Adm. 249 — Human Relations, *or* B. Adm. 321 — Industrial Social Systems; B. Adm. 261 — Summary of Business Law; B. Adm. 351 — Personnel Administration; B.&T.W. 251 — Business and Administrative Communication; B.&T.W. 271 — Sales Writing; B.&T.W. 272 — Report Writing; Sp. Com. 211 — Business and Professional Speaking	
A course in statistics	3
A course in digital computer methods	3
Core courses and open electives to bring total hours to	126

Major in Agricultural Mechanization — Equipment Operations Option

This option is for students who desire to specialize in the problems of equipment and plant operations. Graduates would work as contractors, confinement livestock housing operators, processing plant operators, field foremen for corporation farms, or as farm operators.

For common core requirements of this major, see page 99. Other courses required for this major are:

	HOURS
Prescribed courses in agriculture	
Ag. M. 100 — Engineering Applications in Agriculture	3
Ag. M. 221 — Farm Power and Machinery Management	4
Ag. M. 299 — Seminar	1
Ag. Ec. 220 — Farm Management	3-4
Soils 101 — Introductory Soils	4
Agron. 121 — Principles of Field Crop Science	4
Twelve hours from the following agricultural mechanization courses: Ag. M. 200 — Agricultural Mechanization Shop: Construction Technology; Ag. M. 201 — Agricultural Mechanization Shop: Electrical and Metalwork; Ag. M. 241 — Farm Tractor Power; Ag. M. 252 — Mechanics of Soil and Water Conservation; Ag. M. 272 — Farm Buildings; Ag. M. 281 — Grain Drying, Handling, and Storage; Ag. M. 300 — Special Problems; Ag. M. 331 — Farm Machinery Technology; Ag. M. 333 — Agricultural Chemical Application Systems; Ag. M. 361 — Development and Function of Family Housing; Ag. M. 372 — Livestock Waste Management; Ag. M. 381 — Electro-Mechanical Agricultural Systems	

Twelve hours from the following production and management courses:
Ag. E. 203 — Farm Taxation; Ag. Ec. 230 — Marketing of Agricultural Products; Ag. Ec. 302 — Financing Agriculture; Ag. Ec. 303 — Agricultural Law; Ag. Ec. 324 — Decision Making for Farm Operators; Ag. Ec. 325 — Economics of Agricultural Production; Soils 303 — Soil Fertility and Fertilizers; Agron. 322 — Forage Crops and Pastures; An. S. 307 — Environmental Aspects of Animal Management; Hort. 242 — Vegetable Crop Production
Agriculture hours must total a minimum of....40
Humanities: (see page 99)....6
Social sciences: A minimum of 9 hours in the social sciences from two departments, including Econ. 101 (see page 99)....9
Other prescribed courses:
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I....3
Math. 114 — Plane Trigonometry (unless exempt by Mathematics Placement Test)....2
Phycs. 101 — General Physics (Mechanics, Heat, and Sound)....5
Core courses and open electives to bring total hours to....126

Up to 8 hours of free elective credit will be allowed for vocational skills courses taken at community colleges in the subject matter areas of surveying, carpentry, welding, engine analysis and overhaul, power trains, hydraulics, and electro-mechanical systems. Students who lack these skills are advised to complete such courses at another institution, or to gain such skills through practical experience. Concurrent enrollment may be arranged at the discretion of the dean of the college.

Major in Agronomy

Students wishing to major in agronomy select one of four specializations: crops, soils, agronomy, or crop protection. For those who may later desire to pursue graduate work, adequate training may be obtained by suitable choices of electives within the framework of this major or in the agricultural science or soil science curricula. Numerous employment opportunities exist in various agricultural industries for students who wish to major in the agricultural industries curriculum with emphasis in agronomy and to have an adviser in agronomy.

For common core requirements of this major, see page 99. Other courses required for this major are:

HOURS

Prescribed courses in agriculture
Soils 101 — Introductory Soils....4
Agron. 121 — Principles of Field Crop Science....4
Agron. 290 — Undergraduate Agronomy Seminar....1
Elective courses in agronomy[1]....18

Crops
Agron. 110 — Plant and Animal Genetics....3
Agron. 318 — Crop Growth and Production....3
Agron. 319 — Environment and Plant Ecosystems....3
Agron. 322 — Forage Crops and Pastures....3
Agron. 323 — Principles of Plant Breeding....4
Agron. 326 — Weeds and Their Control....3
Agron. 330— Plant Physiology....3
Agron. 350 — Crops and Man....3

Soils
Soils 301 — Soil Survey, with Emphasis on Illinois Soils....3
Soils 302 — Soil Testing Practicum....2-3
Soils 303 — Soil Fertility....3
Soils 304 — Soil Management and Conservation....3
Soils 305 — Biochemical Processes in Soil and Water Environment....3
Soils 307 — Soil Chemistry....3
Soils 308 — Physics of the Plant Environment....4
Soils 311 — Laboratory Method for Soils Analysis....3
Soils 313 — Soil Mineral Analysis....4

Crop protection
Agron. 110 — Plant and Animal Genetics, or Agron. 330 — Plant Physiology....3
Soils 301 — Soil Survey with Emphasis on Illinois Soils, or Soils 303 — Soil Fertility and Fertilizers....3
Agron. 326 — Weeds and Their Control....3
Hort. 100 — Introductory Horticulture....3
Hort. 242 — Vegetable Crop Production, or Hort. 261 — Small Fruit and Viticulture Science, or Hort. 262 — Tree Fruit Science....3
Pl. Pa. 204 — Introductory Plant Pathology....3
Pl. Pa. 305 — Plant Disease Development and Control, or Pl. Pa. 377 — Diseases of Field Crops....3

Elective courses in agriculture to bring total agriculture courses to a minimum of 40
Humanities (see page 99) 6
Social sciences: A minimum of 9 hours from two departments including Econ. 101 — Introduction to Economics (see page 99) 9
Other prescribed courses
Geol. 101 — An Introduction to the Study of the Earth, or Geol. 107 — General Geology I (all options) 4
Crop protection only
Chem. 131 — Elementary Organic Chemistry and Chem. 134 — Elementary Organic Chemistry Laboratory 5
Entom. 120 — Introductory Applied Entomology 3
Entom. 319 — Fundamentals of Insect Control 4
Speech, journalism, or business and technical writing course 2-3
Core courses and open electives to bring total hours to.....126

[1] Crops option requires 12 hours from agronomy-crops and 6 hours from agronomy-soils. Soils option requires 12 hours from agronomy-soils and 6 hours from agronomy-crops. Agronomy option requires 18 hours of agronomy, with a minimum of 6 hours each from crops and soils. Crop protection requires all courses as specified.

Major in Animal Science

The general animal science option is for students interested in preparing for work in the fields of animal feeding and nutrition, animal breeding and genetics, animal production, or related fields of the livestock and poultry industry. The industrial animal science option is designed to provide students with preparation in biological management, business management, environmental science, finance, and production economics for a career in large-scale, food-animal production. The companion animal biology option is for students who are primarily interested in activities associated with the companion animal industry or in gaining a basic knowledge of biological management and training of animals used in recreational activities. For common core requirements of this major, see page 99.

GENERAL ANIMAL SCIENCE OPTION **HOURS**

Prescribed courses in agriculture
An. S. 100 — Introduction to Animal Science.....4
An. S. 110 — Plant and Animal Genetics.....3
An. S. 202 — Domestic Animal Physiology 4
An. S. 209 — Meat Animal and Carcass Evaluation, or An. S. 309 — Meat Science 3-4
An. S. 221 — Animal Nutrition.....4
Two of the following:
An. S. 301 — Beef Production.....3
An. S. 302 — Sheep Science.....3-4
An. S. 303 — Pork Production.....3
An. S. 304 — Poultry Management.....3-4
Two of the following:
Soils 101 — Introductory Soils; An. S. 231 — Comparative Physiology of Reproduction, Lactation, and Growth; An. S. 305 — Genetics and Animal Improvement; An. S. 307 — Environmental Aspects of Animal Management; An. S. 310 — Genetics of Domestic Animals; An. S. 320 — Nutrition and Digestive Physiology of Ruminants; An. S. 331 — Physiology of Reproduction in Domestic Animals; An. S. 332 — Livestock and Meat Marketing.
Elective courses in agriculture to bring total agriculture courses to a minimum of 40
Humanities (see page 99) 6
Social sciences: A minimum of 9 hours from two departments including Econ. 101 — Introduction to Economics (see page 99) 9
Mcbio. 100 — Introductory Microbiology and Mcbio. 101 — Introductory Experimental Microbiology, or Mcbio. 200 — Microbiology and Mcbio. 201 — Experimental Microbiology 5
Core courses and open electives to bring total hours to.....126

INDUSTRIAL ANIMAL SCIENCE OPTION **HOURS**

Prescribed courses in agriculture
An. S. 100 — Introduction to Animal Science.....4
An. S. 110 — Plant and Animal Genetics.....3
An. S. 202 — Domestic Animal Physiology 4
An. S. 209 — Meat Animal and Carcass Evaluation 3
An. S. 221 — Animal Nutrition.....4
An. S. 231 — Comparative Physiology of Reproduction, Lactation, and Growth, or 331 — Physiology of Reproduction in Domestic Animals 3
An. S. 301 — Beef Production or An. S. 302 — Sheep Science 3-4
An. S. 303 — Pork Production or An. S. 304 — Poultry Management.....3-4
An. S. 307 — Environmental Aspects of Animal Management 3

Ag. M. 272 — Farm Buildings 3
Ag. M. 281 — Grain Drying, Handling, and Storage 3
Ag. Ec. 220 — Farm Management 3-4
Ag. Ec. 302 — Agricultural Finance 3
Elective courses in agriculture to bring total agriculture courses to a minimum of 40
Humanities (see page 99) 6
Social sciences: A minimum of 9 hours from two departments including Econ. 101 — Introduction to Economics (see page 99) 9
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I 3
Mcbio. 100 — Introductory Microbiology and Mcbio. 101 — Introductory Experimental Microbiology, or Mcbio. 200 — Microbiology and Mcbio. 201 — Experimental Microbiology 5-8
C.S. 105 — Introduction to Computers and Their Application to Business and Commerce 3
B. Adm. 210 — Management and Organizational Behavior, or B. Adm. 247 — Introduction to Management 3
Core courses and open electives to bring total hours to 126

COMPANION ANIMAL BIOLOGY OPTION **HOURS**

Prescribed courses in agriculture
An. S. 100 — Introduction to Animal Science 4
An. S. 110 — Plant and Animal Genetics 3
An. S. 202 — Domestic Animal Physiology 4
An. S. 206 — Light Horse Management 3
An. S. 207 — Companion Animal Management 3
An. S. 221 — Animal Nutrition 4
An. S. 231 — Comparative Physiology of Reproduction, Lactation, and Growth 3
An. S. 299 — Seminar 1
An. S. 307 — Environmental Aspects of Animal Management 3
An. S. 346 — Animal Behavior, or An. S. 203 — Behavior of Domestic Animals 3
Elective courses in agriculture to bring total agriculture to a minimum of 40
Humanities (see page 99) 6
Social sciences: A minimum of 9 hours from two departments in the social sciences, including Econ. 101 — Introduction to Economics (see page 99) 9
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I 3
Mcbio. 100 — Introductory Microbiology and Mcbio. 101 — Introductory Experimental Microbiology, or Mcbio. 200 — Microbiology and Mcbio. 201 — Expermental Microbiology 5-8
Chem. 131 — Elementary Organic Chemistry 3
Core courses and open electives to bring total hours to 126

Major in Dairy Science

The purpose of the major in dairy science is to provide training for students planning careers as dairy farm operators and managers, as field representatives for milk plants, breed associations, feed companies, and governmental agencies, as control technicians or salespersons for feed manufacturers, as laboratory and field technicians in artificial insemination, and as breeding consultants.

In addition, this major provides a foundation for advanced study in preparation for careers as college teachers, research scientists in experiment stations and industry, and as extension specialists.

For common core requirements of this major, see page 99. Other courses required for this major are:

HOURS

Prescribed courses in agriculture
Twenty hours from the following:
Ag. Ec. 220 — Farm Management; D.S. 110 — Plant and Animal Genetics; D.S. 203 — Behavior of Domestic Animals; D.S. 204 — Dairy Cattle Evaluation; D.S. 221 — Animal Nutrition; D.S. 231 — Comparative Physiology of Reproduction, Lactation, and Growth; D.S. 301 — Dairy Herd Management; D.S. 305 — Genetics and Animal Improvement; D.S. 308 — Physiology of Lactation; D.S. 316 — Population Genetics; D.S. 317 — Quantitative Genetics; D.S. 320 — Nutrition and Digestive Physiology of Ruminants; D.S. 331 — Physiology of Reproduction in Domestic Animals; D.S. 340 — Introduction to Applied Statistics; D.S. 345 — Statistical Methods; D.S. 350 — World Animal Agriculture; D.S. 385 — Gastrointestinal and Methanogenic Microbial Fermentations
Elective courses in agriculture at the 200 and 300 level 10
Elective courses in agriculture to bring total agriculture courses to a minimum of 40
Humanities and social sciences: An approved 6 hours in the humanities and a minimum of 9 hours from two departments in the social sciences including Econ. 101 — Introduction to Economics (see page 99) 15
Speech communication, journalism, or business and technical writing elective 2-3
Minimum of 9 hours from at least two of the following areas:
Accy. 200 or 201; biochemistry; biology;[1] chemistry; computer science; ecology, ethology,

and evolution; entomology; geology; mathematics;[1] microbiology;[1] physics; Physl. 103, or any 200- or 300-level physiology course; plant biology[1]
Core courses and open electives to bring total hours to. 126

[1] Beyond minimum curriculum requirements.

Major in General Agriculture

This major is for students who are interested in a broad basic training in agriculture, rather than in specialization within a departmental field of work. Areas for which such training is suited include production agriculture, agricultural extension, agricultural services, and others.

Students should refer to *A Handbook for Agriculture Students and Advisers* for suggested courses and programs of study for training in these areas within this major.

For common core requirements of this major, see page 99. Other courses required for this major are:

	HOURS
Prescribed course in agriculture	
Soils 101 — Introductory Soils	4
In addition to core courses in agriculture, at least 3 hours of credit in each of the following departments: Agricultural Economics, Agricultural Engineering (Agricultural Mechanization), Agronomy (in addition to Soils 101), Animal Science, Dairy Science, Horticulture	18
Elective courses in agriculture to bring total agriculture courses to a minimum of	50
Humanities (see page 99)	6
Social sciences: A minimum of 9 hours from two departments including Econ. 101 — Introduction to Economics (see page 99)	9
Core courses and open electives to bring total hours to.	126

Major in Horticulture

This major is for students who desire a basic general knowledge of horticulture. Emphasis is placed on the basic plant sciences to give a general background for the specialized phases of horticulture, particularly those concerned with the production of food crops, such as fruits and vegetables for fresh market and processing.

Students who are interested in ornamental plants should consult the Ornamental Horticulture curriculum (see page 116).

For common core requirements, see page 99. Other courses required in this major are:

	HOURS
Prescribed courses in agriculture	
Ag. M. 100 — Engineering Applications in Agriculture	3
Soils 101 — Introductory Soils	4
Entom. 120 — Introduction to Applied Entomology	3
F.S. 101 — Food in Modern Society	3
Hort. 100 — Introduction to Horticulture	3
Hort. 110 — Plant and Animal Genetics	3
Hort. 221 — Plant Propagation	3
Hort. 242 — Commercial Vegetable Production	3
Hort. 261 — Small Fruit and Viticulture Science	3
Hort. 262 — Tree Fruit Science	3
Hort. 321 — Floricultural Physiology, or Hort. 345 — Growth and Development of Horticultural Crops	4
Pl. Pa. 204 — Introductory Plant Pathology	3
Additional horticulture courses, except Hort. 125 — Survey of Landscape Horticulture; Hort. 190 — Home Vegetable Gardening; and Hort. 233 — Floriculture for the Home	6
Elective courses in agriculture to bring total agriculture courses to a minimum of	40
Humanities and social sciences: An approved 6 hours in the humanities. A minimum of 9 hours from two departments in the social sciences, including Econ. 101 — Introduction to Economics (see page 99)	15
Other prescribed courses:	
Pl. Bio. 234 — Form and Function of Flowering Plants	3
Core courses and open electives to bring total hours to.	126

CURRICULUM IN AGRICULTURAL COMMUNICATIONS

For the degree of Bachelor of Science in Agriculture

This curriculum is designed for students who wish to pursue careers in the combined fields of agriculture and communications. It seeks to prepare them for work as professionals in agricultural

writing, editing, and publishing; public relations; advertising; radio and television broadcasting; photography; and related activities. The College of Agriculture and the College of Communications offer this curriculum cooperatively. It allows the planning of study programs closely related to the student's interests in one of three communications options: news-editorial, advertising, or broadcast journalism.

Upon completion of the curriculum requirements and a minimum of 126 hours of credit, the student is awarded the degree of Bachelor of Science in Agriculture.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Agriculture core course (see page 99)	3
Biological science course[1]	4-5
Math. 111 — Algebra, or Math. 112 — College Algebra; or exemption	3-5
Rhet. 105 or 108 — Composition (see English, page 99)	3-4
Total	14-18

SECOND SEMESTER	HOURS
Agriculture core course	3-4
Chem. 100 — Introductory Chemistry	2
Sp. Com. 101 — Principles of Effective Speaking	3
Biological science course	4-5
Elective	2-3
Total	15-17

SECOND YEAR

Agriculture core course	3-4
Ag. Com. 114 — Agricultural Communications Media and Methods[2]	3
Econ. 101 — Introduction to Economics	4
Physical science[3]	3-4
Social science[4]	3
Total	16-18
Agriculture elective	3
Ag. Com. 214 — Agricultural Communications Strategy	3
Humanities course (see page 99)	3
Social science course	3
Open electives	4-6
Total	16-18

[1] Two of the following are required in this curriculum: Pl. Bio. 100 — Plant Biology; or Biol. 104 — Animal Biology; or Mcbio. 100 and 101 — Introductory Microbiology and Introductory Experimental Microbiology.

[2] A minimum of 35 hours of agriculture courses is required, including Ag. Com. 310 — Information for Agriculture; and Ag. Com. 290 — Professional Seminar. At least 10 of the 35 hours must be in agriculture electives other than agricultural communications, with at least 8 hours at the 200-300 level.

[3] A minimum of 10 hours is required from astronomy, atmospheric sciences, chemistry, computer science, geology, mathematics, physics, or specified statistics courses. Math. 111 or 112 and Chem. 100 cannot be included in the 10 hours.

[4] A minimum of 15 hours required, including Econ. 101 — Introduction to Economics; Psych. 100 — Introduction to Psychology; and Pol. Sci. 150 — American Government.

THIRD AND FOURTH YEARS

Students complete requirements in the Agriculture, Physical Science, Social Science, and Humanities areas along with a minimum 20-hour Communications requirement selected from one of the following options:

Advertising Option	HOURS
Adv. 281 — Introduction to Advertising	3
Adv. 381 — Advertising Research Methods	3
Adv. 382 — Advertising Creative Strategy and Tactics	3
Adv. 383 — Advertising Media Strategy and Tactics	3
Adv. 391 — Advertising Management: Planning	3
Adv. 392 — Advertising Management: Strategy and Tactics	3

Electives in communications to complete the 20-hour requirement.

News-Editorial Option	HOURS
Journ. 204 — Typography	3
Journ. 350 — Reporting I	4
Journ. 370 — News Editing	4

One course from the following:
Journ. 217 — History of Communications; Journ. 218 — Communications and Public Opinion; Journ. 220 — Communications and Popular Culture; Journ. 231 — Mass Communication in a Democratic Society; Journ. 241 — Law and Communications; Journ. 251 — Social Aspects of Mass Communications

One course from the following:
Journ. 326 — Magazine Article Writing; Journ. 330 — Magazine Editing; Journ. 372 — Broadcast Newswriting and Gathering; Journ. 380 — Reporting II

Electives in communications to complete the 20-hour requirement.

Broadcast Journalism Option

Journ. 241 — Law and Communications 3
Journ. 350 — Reporting I 4
Journ. 362 — Broadcast News Production 4
Journ. 372 — Broadcast Newswriting and Gathering 4
Journ. 382 — Broadcast News Editing 4
Electives in communications to complete the 20-hour requirement.

CURRICULUM IN AGRICULTURAL ENGINEERING

For the degree of Bachelor of Science in Agricultural Engineering

This curriculum, outlined on page 112, is administered in the College of Engineering. Requirements for the first year are the same as in other engineering curricula. Courses in agricultural engineering begin in the third semester. In the third year, the student chooses technical electives for specialization in one of the following: processing, structures and environment, power and machinery, or soil and water. A specialization in food engineering is also available (see page 189).

For the degrees of Bachelor of Science in Agricultural Engineering, and of Bachelor of Science in Agriculture

Students may obtain bachelor's degrees in both agricultural engineering and agriculture in five years by choosing the curriculum in agricultural science, option 3, on page 112. Students following the five-year program enroll in the College of Agriculture for their first three years of work and then transfer to the College of Engineering for the last two years.

CURRICULUM IN AGRICULTURAL INDUSTRIES

For the degree of Bachelor of Science in Agriculture

This curriculum closely parallels the requirements of the core curriculum in agriculture with the additional requirement for a minimum of 27 hours of commerce and business courses. It is designed to prepare students for careers in industries that service or are related to agriculture. This includes businesses involved in providing the farm firm with production inputs including those involved in financing agricultural operations. Opportunities also include firms involved in marketing food and other products produced on farms through local, intermediate, wholesale, and retail outlets. Upon completion of the curriculum requirements and a minimum of 126 hours of credit, the student is awarded the degree of Bachelor of Science in Agriculture.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1	Agriculture core course	3-4
Agriculture core course (see page 99)	3-4	Chem. 101 — General Chemistry	4
Math. 111 — Algebra, or Math. 112 — College Algebra (see Math. page 99)	5-3	Math. 114 — Plane Trigonometry, or Math. 124 — Introductory Analysis for Social Scientists I	2-3
Natural science course (see page 99)	3-5	Natural science course	3-5
Rhet. 105 or 108 — Composition (see English, page 99)	4	Sp. Com. 101 — Principles of Effective Speaking	3
Total	15-17	Total	15-17

SECOND YEAR

Agriculture core course	3-4	Agriculture elective	3
Business course (see page 99)	3	Business courses	6
Humanities course (see page 99)	3	Journalism, business and technical writing, speech communication, or elective	2-3
Natural science course	3-5	Econ. 101 — Principles of Economics	4
Social science course (see page 99)	3		
Total	15-17	Total	15-16

THIRD AND FOURTH YEARS

The general requirements, in addition to the courses listed for the first two years, include completion of: (1) a minimum of 27 hours of business courses from those listed, (2) agriculture electives to bring total agriculture to 35 hours, (3) an approved 6 hours in the humanities (see page 99), (4) a minimum of 9 hours of approved social science courses, other than economics and Fin. 150 (see page 99), (5) sufficient open electives to bring the total hours to 126. See Agriculture *Student Handbook* for groups of suggested electives based on student's specific career interests.

Natural Science Courses Group

In addition to the chemistry and mathematics courses listed for the first two years, each student must complete *three courses* from the following:

	HOURS
Pl. Bio. 100 — Plant Biology, or Mcbio. 100 — Introductory Microbiology	4-3
Chem. 102 or Chem. 103 — General Chemistry	4
Geol. 101 — An Introduction to the Study of the Earth, or Geol. 107 — General Geology I	4
Math. 120 — Calculus and Analytic Geometry, or Math. 134 — Calculus for Social Scientists I, or analytic geometry	4-5
Biol. 104 — Animal Biology, or Physl. 103 — Introduction to Human Physiology	4

Business Courses Group

Each student in this curriculum must take a minimum of 27 hours to include:

	HOURS
Econ. 101 — Introduction to Economics	4
Econ. 300 — Intermediate Microeconomic Theory	3
One or more courses from each of the following:	
Fin. 254 — An Introduction to Business Financial Management, or Ag. Ec. 302 — Financing Agriculture	3
B. Adm. 247 — Introduction to Management, or B. Adm. 210 — Management and Organizational Behavior	3
B. Adm. 202 — Principles of Marketing, or Ag. Ec. 230 — Marketing of Agricultural Products, or Ag. Ec. 338 — Agribusiness Management	3
Two courses from:	
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I	3
Computer science	3
Statistics	3-4
Two courses elected from: accountancy, advertising, business administration, economics, or finance	6

CURRICULUM IN AGRICULTURAL EDUCATION

For the degree of Bachelor of Science in Agriculture

The purpose of this curriculum is to prepare students to teach vocational agriculture in secondary schools and community colleges, and to work in the Cooperative Extension Service and in many agribusiness areas. In addition to the training outlined in this curriculum, the Illinois State Plan calls for a minimum of one year or 2,000 hours of employment experience in agriculture for those who choose to be certified as secondary school agriculture instructors. A minimum of 130 hours of credit is required for graduation. For teacher education requirements applicable to all curricula, see the section on teacher education beginning on page 87.

General Education Requirements

COMMUNICATIONS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 or 108, and Sp. Com. 101	6-7
NATURAL SCIENCES	
Biol. 104 — Animal Biology	4
Math. 111 or 112 — College algebra, or exemption by placement test	3-5
Pl. Bio. 100 — Plant Biology	4
Chem. 101 and 102 or 103 — General Chemistry including Organic	8
Total	19-21
HUMANITIES	
Approved courses (see page 99)	6
SOCIAL SCIENCES	
Econ. 101 — Introduction to Economics	4
Psych. 100 — General Psychology	3
Electives	6-8
For students interested in secondary education certification, these electives must be selected to fulfill certification requirements in political science and U.S. history. The course in political science must include instruction on the constitutions of Illinois and the United States.	
Total	13-15
HEALTH AND/OR PHYSICAL EDUCATION	3

Professional Education Courses

	HOURS
Ed. Psy. 211 — Educational Psychology	3
Ed. Pr. 150 — School and Community Experiences	2
E.P.S. 201 — Foundations of American Education	3
Vo. Tec. 101 — Nature of the Teaching Profession	2
Vo. Tec. 240 — Principles of Vocational and Technical Education	2
Vo. Tec. 275 — Pre-Student Teaching in Agricultural Education	2-3
Vo. Tec. 276 — Student Teaching in Vocational Agriculture	8
Vo. Tec. 277 — Programs and Procedures in Agricultural Education	5
Total	27-28

Prescribed Courses in Agriculture

CORE COURSES

	HOURS
Agr. 100 — Agriculture in Modern Society	1
Ag. Ec. 100 — Introductory Agricultural Economics	3
Ag. M. 100 — Engineering Applications in Agriculture, or Ag. M. 200 — Agricultural Mechanics Shop: Construction Technology	3
Soils 101 — Introductory Soils	4
Total	11

Approved Options

Each student must select one of the following five options. The prescribed agriculture courses and elective agriculture courses must total 40 hours, including the 11 hours listed above, and must include a minimum of 20 hours of 200- and 300-level courses 29

AGRICULTURAL PRODUCTION OPTION

	HOURS
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 230 — Marketing of Agricultural Products, or Ag. Ec. elective 300-level courses	3
Ag. M. 201 — Agricultural Mechanics Shop: Electrical and Metalwork	3
Agricultural mechanization elective 200-level course	3-4
Agron. 121 — Principles of Field Crop Science	4
An. S. or D.S. 221 — Animal Nutrition	4
Animal science or dairy science elective	3
Hort. 100 — Introductory Horticulture	3

AGRICULTURAL SUPPLY AND PRODUCTS OPTION

	HOURS
Ag. Ec. 220 — Farm Management	3-4
Ag. Ec. 230 — Marketing of Agricultural Products	3
Ag. Ec. 338 — Agribusiness Management	3
Ag. M. 201 — Agricultural Mechanics Shop: Electrical and Metalwork	3
Agron. 121 — Principles of Field Crop Science	4
Soils 303 — Soil Fertility and Fertilizers, or Agron. 326 — Weeds and Their Control	3
An. S. or D.S. 221 — Animal Nutrition	4
Hort. 225 — Ornamental Gardening, or Hort. 233 — Floriculture for the Home	3
Nonagriculture courses:	
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I	3

AGRICULTURAL MECHANIZATION OPTION

	HOURS
Ag. M. 200 — Agricultural Mechanics Shop: Construction Technology	3
Ag. M. 201 — Agricultural Mechanics Shop: Electrical and Metalwork	3
Agricultural mechanization electives — 200- and 300-level courses excluding Ag. M. 361	10
Hort. 100 — Introductory Horticulture	3
An. S. 100 — Introduction to Animal Science or An. S. 207 — Companion Animal Management	3-4

HORTICULTURE OPTION

	HOURS
An. S. 100 — Introduction to Animal Science or An. S. 207 — Companion Animal Management	3-4
Entom. 120 — Introduction to Applied Entomology	3
Hort. 100 — Introductory Horticulture	3
Pl. Pa. 204 — Introductory Plant Pathology	3
Nine hours from: Hort. 125, 201, 202, 221, 226, 233, 236, 242, 251, 261, 262	9

AGRICULTURAL RESOURCES AND FORESTRY OPTION

	HOURS
Soils 304 — Soil Management and Conservation	3
An. Sci. 100 — Introduction to Animal Science or An. Sci. 207 — Companion Animal Management	3-4
Entom. 120 — Introduction to Applied Entomology	3
For. 101 — General Forestry	3

For. 220 — Dendrology 4
For. 253 — Forest Economics or For. 260 — Forest Land Policy and Administration or For. 319 — Environment and Plant Ecosystems 3
Hort. 100 — Introductory Horticulture 3
R. Soc. 270 — Population Issues or R. Soc. 277 — Rural Social Change 3

CURRICULUM IN AGRICULTURAL SCIENCE

For the degree of Bachelor of Science in Agriculture

This curriculum is especially designed for students who plan to do graduate study in agricultural fields or those who wish to engage in professional work requiring more science, mathematics, or engineering than is included in the core curriculum in agriculture. The flexibility of the options provides an opportunity for planning individual programs of study under the supervision of a faculty adviser qualified in the student's special field of interest.

Option 1. For students desiring preparation for graduate study or professional work in animal, plant, or soil science.

Option 2. For students desiring preparation for graduate study or professional work in the fields included in agricultural economics, agricultural law, and rural sociology.

Option 3. For students enrolled in the five-year, combined agricultural science and agricultural engineering program.

To be eligible for admission to the curriculum, students entering as freshmen must meet the minimum selection index as determined by high school rank and test scores. Students entering as transfers must have a scholastic grade-point average in their collegiate work of not less than 4.00 for options 1 and 2 and 3.25 for option 3 in terms of the grading system of the University of Illinois (A = 5.0). Once enrolled, all students in options 1 and 2 must maintain an average of at least 4.00, and those in option 3 must maintain at least 3.00 for both their University of Illinois and cumulative average to remain in and graduate from the curriculum. A summary of the minimum requirements for all three options follows.

Summary

	OPTIONS 1 AND 3 MINIMUM HOURS	OPTION 2 MINIMUM HOURS
General University requirements (Rhet. 105)	4	4
Group I: College of Agriculture courses (15 of the 30 hours must be at the 200 and 300 level)	30	30
In option 3, a maximum of 15 hours of agricultural engineering and agricultural mechanization courses may be credited toward the degree in agriculture.		
Group II: Humanities (see page 99)	6	6
Group III: Social sciences (see page 99)	9	16
In option 2, at least 8 hours in economics must be included.		
In option 2, a minimum of 54 hours must be completed in groups III, IV, and V, combined, including the minimum hours indicated for each group.		
Group IV: Biological science (biology; ecology, ethology, and evolution; entomology; microbiology; physiology; plant biology; zoology)	10	6
In options 1 and 3, a total of 45 hours in groups IV and V, with a minimum of 10 hours in each must be completed.		
In option 2, a minimum of 54 hours must be completed in groups III, IV, and V, combined, including the minimum hours indicated for each group.		
Group V: Physical science (biochemistry, chemistry, computer science, geology, mathematics, physics) and approved courses in statistics	10	16
In options 1 and 3, a total of 45 hours in groups IV and V, with a minimum of 10 hours in each, must be completed.		
In option 3, T.A.M. 145 and 212 may be counted toward group V.		
In option 2, a minimum of 54 hours must be completed in groups III, IV, and V, combined, including the minimum hours indicated for each group.		
Electives (unrestricted)	32	32
Total required for graduation	126	126

Sample Program: Options 1 and 2

Students in both options follow a first-year program closely related to the core curriculum as outlined on page 99 of this catalog. The programs for the second, third, and fourth years are planned in consultation with the student's faculty adviser consistent with the student's career objectives and the curriculum requirements summarized on pages 99 and 100. Courses suggested

to prepare students for admission to graduate study in various areas are included in the *Agriculture Student Handbook*. A total of 126 hours is required for graduation.

Option 3. Sample Program. Five-Year Combined Program in Agricultural Science and Agricultural Engineering for the Degrees of Bachelor of Science in Agriculture and Bachelor of Science in Engineering

Students enroll in the College of Agriculture for the first three years and then transfer to the College of Engineering for the last two years. The suggested program of study that follows fulfills graduation requirements for both the Colleges of Agriculture and Engineering.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1	Chem. 101 — General Chemistry[1]	4
Math. 112 — College Algebra[1]	3	Math. 120 — Calculus and Analytic Geometry I	5
Math. 114 — Plane Trigonometry[1]	2	G.E. 103 — Engineering Graphics I	3
Rhet. 105 — Composition[2]	4	G.E. 193 — Special Problem	0
Biological science elective[3,5]	4	Agriculture science elective[4,5]	4
Humanities or social science elective[6]	3		
Total	17	Total	16
SECOND YEAR			
Ag. E. 126 — Engineering in Agriculture	4	T.A.M. 150 — Analytic Mechanics (Statics), or T.A.M. 152 — Engineering Mechanics I (Statics)	2-3
Chem. 102 — General Chemistry[1]	4	Econ. 101 — Introduction to Economics[6]	4
Math. 132 — Calculus and Analytic Geometry II	3	Math. 242 — Calculus of Several Variables	3
Math. 225 — Introduction Matrix Theory	2	C.S. 101 — Introduction to Computers	3
Phycs. 106 — General Physics (Mechanics)	4	Phycs. 107 — General Physics (Heat, electricity, magnetism)	4
Total	17	Total	16-17
THIRD YEAR			
Agriculture science elective[4,5]	4	Ag. E. 127 — Production Systems in Agriculture	3
Math. 345 — Differential Equations and Orthogonal Functions	3	Biological science elective[3,5]	4
Phycs. 108 — General Physics (Wave, motion, sound, light, modern physics)	4	T.A.M. 221 — Elementary Mechanics of Solids	3
T.A.M. 212 — Engineering Mechanics II (Dynamics)	3	C.E. 261 — Introduction to Structural Engineering or M.E. 220 — Mechanics of Machinery[7]	3
Humanities or social science elective	2	Biological science elective[2]	3
Total	16	Total	16
FOURTH YEAR			
Agricultural engineering technical elective, Group I[7]	3	Agricultural engineering technical elective, Group I[7]	3
T.A.M. 235 — Fluid Mechanics	4	Ag. E. 298 — Seminar	1
E.E. 220 or E.E. 260 — Circuit Analysis	3	M. E. 209 — Thermodynamics & Heat Transfer	3
Agriculture science elective[4,5]	3	Agriculture science elective[4,5]	3
Humanities or social science elective[6]	3	Humanities or social science elective[6]	3
Total	16	Free elective[8]	3
		Total	16
FIFTH YEAR			
Agricultural engineering technical elective, Group II[7]	3	Agricultural engineering technical elective, Group II[7]	3
Technical elective[7]	3	Ag. E. 299 — Undergraduate Thesis	2
Agriculture science elective[4,5]	4	Technical elective[7]	3
Biological science elective[3,5]	2	Free elective[8]	5-6
Humanities or social science elective[6]	3	Total	13-14
Total	15		
Total	**158**		

[1] Students with three or four years of high school mathematics, including trigonometry, and a satisfactory grade on the Mathematics Placement Tests, may take Math. 120 the first semester. If Math. 120 is taken the first semester and the student has received a satisfactory score on the Chemistry Placement Test, Chem. 101 may also be taken the first semester.

[2] Sp. Comm. 111 and 112, 3 hours each, may be substituted for Rhet. 105, and is recommended.

[3] Ten hours of biological sciences are required (biology, ecology, ethology, and evolution, entomology, microbiology, plant biology, physiology, and zoology).[5]

[4] Fifteen hours of agricultural sciences other than agricultural engineering and agricultural mechanics are required. Recommend Agron. 121, Soils 101, and Agr. Ec. 220.[5]

[5] To meet engineering degree requirements, 12 hours of the biological and agricultural sciences (footnotes 3 and 4) must be chosen from the following: At least 8 hours from Agron. 121, 322, 326; An. S. 307; Biol. 100, 101, 104; Entom. 120; Geol. 101, 250; Mcbio. 100; Pl. Bio. 100; and Soils 101, 308; the remainder from: Ag. Ec. 220, 324, 325; Ag. M. 200, 201.

[6] Fourteen hours of social sciences and humanities are required in addition to Econ. 101. An approved 6-hour sequence in both social science and humanities is required to meet College of Engineering requirements. Since the list of courses that the Colleges of Engineering and of Agriculture accept for the humanities and social science requirements varies, students should be careful to select those which are acceptable to both colleges. (*Note:* history is a humanities in engineering, a social science in agriculture).

[7] Each student must have 18 to 20 hours of technical electives selected from the following: (1) C.E. 261 or M.E. 220; (2) two courses from agricultural engineering technical electives, Group I, and two courses from Group II; and (3) additional courses from other technical electives.

[8] Sufficient open electives to total the minimum curriculum requirement of 158 hours. All requirements of the combined curriculum (as outlined) must be completed to satisfy the requirements for both degrees.

AGRICULTURAL ENGINEERING TECHNICAL ELECTIVES

	HOURS
Group I	
Ag. E. 236 — Machine Characteristics and Mechanisms	3
Ag. E. 256 — Surveying Agricultural and Forest Lands	3
Ag. E. 287 — Environmental Control for Plants and Animals	3
Ag. E. 311 — Instrumentation and Measurements	3-4
Ag. E. 340 — Introduction to Applied Statistics	4
Group II	
Ag. E. 277 — Design of Agricultural Structures	3
Ag. E. 336 — Design of Agricultural Machinery	3
Ag. E. 346 — Tractors and Prime Movers	3
Ag. E. 356 — Soil and Conservation Structures	3
Ag. E. 357 — Land Drainage	3
Ag. E. 387 — Agricultural Process Engineering	3

OTHER TECHNICAL ELECTIVES

A student may choose any course that satisfies the College of Engineering requirements for technical electives. Students desiring to specialize in a specific area of agricultural engineering may use the following lists as a guide in choosing their technical electives.

Electric Power and Processing	HOURS
Ag. E. 236	3
Ag. E. 287	3
Ag. E. 311	3 or 4
Ag. E. 336	3
Ag. E. 340	3
Ag. E. 387	3
Chem. 323	4
M.E. 213	3
M.E. 307	3

Power and Machinery	HOURS
Ag. E. 236	3
Ag. E. 311	3 or 4
Ag. E. 336	3
Ag. E. 340	3
Ag. E. 346	3
M.E. 270	4
M.E. 231	3

Structures and Environment	
Ag. E. 277	3
Ag. E. 287	3
Ag. E. 311	3 or 4
Ag. E. 340	3
Ag. E. 387	3
C.E. 214	2
C.E. 262	3
C.E. 263	3
C.E. 264	3

Soil and Water	
Ag. E. 256	2
Ag. E. 277	3
Ag. E. 287	3
Ag. E. 311	3 or 4
Ag. E. 340	3
Ag. E. 356	3
Ag. E. 357	3
C.E. 255	3
C.E. 264	3
C.E. 280	3

CURRICULUM IN FOOD INDUSTRY

For the degree of Bachelor of Science in Food Industry

The food industry curriculum is more flexible than the Food Science curriculum and is designed to provide the student with training in preparation for a career in the food industry in business

administration, engineering, production, processing, quality control, and public health. A minimum of 130 hours of credit is required for graduation.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1	Biological Science[1]	4
F.S. 101 — Food in Modern Society	3	Chem. 101 — General Chemistry	4
Math. 111 — Algebra or exemption (see Mathematics, page 99)	5	Math. 114 — Trigonometry	2
Rhetoric 105 — Composition (see English, page 99)	4	Sp. Com. 101 — Principles of Effective Speaking	3
Humanities (see page 99)	3	Social science (see page 99)	3
Total	16	Total	16
SECOND YEAR			
Econ. 101 — Introduction to Economics	4	Chem. 131 — Elementary Organic Chemistry	3
Chem. 102 — General Chemistry	4	F.S. 202 — Sensory Evaluation of Food	3
Mcbio. 100 — Introductory Microbiology	3	Phycs. 101 — General Physics	5
Mcbio. 101 — Introductory Experimental Microbiology	2	Social science	3
F.S. 260 — Raw Materials for Processing	4	Elective[2]	3
Total	17	Total	17
THIRD YEAR			
F.S. 213 — Food Analysis I	4	F.S. 363 — Engineering for Food Processing	3
F.S. 214 — Food Chemistry	3	Mcbio. 311 — Food and Industrial Microbiology	3
Humanities	3	Mcbio. 312 — Techniques of Applied Microbiology	2
Social science	3	Electives	8
Accy. 200 — Fundamentals of Accounting	3	Total	16
Total	16		
FOURTH YEAR			
F.S. 301 — Food Processing I	5	F.S. 302 — Food Processing II	5
Electives	12	F.S. 206 — Inspection Trip	1
Total	17	F.S. 332 — Sanitation in Food Processing	2
		Electives	5-8
		Total	16

[1] May be Biol. 104 or 110 or Pl. Bio. 100 or Physl. 103.

[2] Open electives to include a specialized 15-hour group of courses selected by the student and adviser to meet specific career objectives. Examples include courses in business, engineering, and agriculture production. At least 6 hours must be at the 200- and 300-level.

CURRICULUM IN FOOD SCIENCE

For the degree of Bachelor of Science in Food Science

This program is designed for students who wish to be trained in the scientific aspects of food processing, quality control, research, and product development for employment in the food industry, governmental agencies, and educational institutions. This curriculum also provides the scientific background for graduate study in food processing, food chemistry, food microbiology, and nutritional science. A minimum of 130 hours of credit is required for graduation.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1	Biological science[1]	4
F.S. 101 — Food in Modern Society	3	Chem. 101 — General Chemistry	4
Math. 112 — College Algebra (see Mathematics, page 99)	3	Math. 120 — Calculus and Analytic Geometry	5
Math. 114 — Trigonometry	2	Sp. Com. 101 — Principles of Effective Speaking	3
Rhet. 105 — Composition (see English, page 99)	4	Total	16
Social sciences (see page 99)	3		
Total	16		

SECOND YEAR

Chem. 102 — General Chemistry	4
Math. 132 — Calculus and Analytic Geometry II	3
Phycs. 101 — General Physics	5
F.S. 260 — Raw Materials for Processing	4
Total	16
Chem. 131 — Elementary Organic Chemistry	3
Chem. 134 — Elementary Organic Chemistry Laboratory	2
F.S. 202 — Sensory Evaluation of Food	3
Mcbio. 100 — Introductory Microbiology	3
Mcbio. 101 — Introductory Experimental Microbiology	2
Phycs. 102 — General Physics	5
Total	18

THIRD YEAR

F.S. 213 — Food Analysis I	4
F.S. 314 — Food Chemistry and Nutrition I	4
Statistics[2]	3
Humanities (see page 99)	3
Total	14
F.S. 315 — Food Chemistry and Nutrition II	4
F.S. 363 — Engineering for Food Processing	3
Mcbio. 311 — Food and Industrial Microbiology	3
Mcbio. 312 — Techniques of Applied Microbiology	2
Social science	3
Total	15

FOURTH YEAR

F.S. 301 — Food Processing I	5
Humanities	3
Social science	3
Electives	6
Total	17
F.S. 206 — Inspection Trip	1
F.S. 302 — Food Processing II	5
F.S. 332 — Sanitation in Food Processing	2
Electives	8
Total	16

[1] May be Biol. 104 or 110, or Pl. Bio. 100, or Physl. 103.
[2] A minimum of 3 hours credit in one of the following statistics courses is required: Math. 161, Econ. 171, Econ. 172, Psych. 223, Agron. 340, or Ag. Ec. 261.

CURRICULUM IN FORESTRY

For the degree of Bachelor of Science in Forestry

The curriculum in forestry consists of two options. The Forest Science Option prepares students for positions involving management of natural resources, particularly those associated with forests and forest land including environmental quality and ecology. The Wood Products Industries Option prepares students for positions in public or private wood research or in the wood-using industries. Students learn the basic anatomical, physical, chemical, and strength properties of wood as related to the use of wood. Graduates may qualify for employment in a wide range of fields with public agencies or private industry. A minimum of 126 hours of credit, including 8 hours earned in summer field study, is required for graduation.

A summer field study of seven weeks is required for all students, usually between the second and third year.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Pl. Bio. 100 — Plant Biology	4
Math. 112 — College Algebra (see Mathematics, page 99)	3
Math. 114 — Trigonometry	2
Rhet. 105 — Composition (see English, page 99)	4
Humanities (see page 99)	3
Total	17

SECOND SEMESTER	HOURS
Biol. 104 — Animal Biology	4
Chem. 101 — General Chemistry	4
For. 101 — General Forestry	3
Sp. Com. 101 — Principles of Effective Speaking	3
Econ. 101 — Introduction to Economics	4
Total	18

SECOND YEAR

Geol. 101 — Principles of Geology	4
Phycs. 101 — General Physics (mechanics, heat, and sound)	5
For. 220 — Dendrology	4
Humanities	3
Total	16
Soils 101 — Introduction to Soils	4
Math. 120 — Calculus and Analytic Geometry	5
Phycs. 102 — General Physics (light, electricity, and magnetism)	5
Chem. 102 or 103 — General Chemistry	4
Total	18

SUMMER FIELD STUDIES	HOURS
For. 201 — Wildland Recreation	1
For. 211 — Forest Ecology	2
For. 221 — Forest Measurements	2
For. 231 — Wood Utilization I	1
For. 281 — Introduction to Forest Resource Management	2
Total	8

THIRD AND FOURTH YEARS

The course of study for the third and fourth years follows the option selected and is planned in consultation with the student's faculty adviser.

Forest Science Option

The following courses are required:

	HOURS
For. 213 — Silviculture	3
For. 232 — Wood Utilization II, For. 236 — Physical Properties of Wood and Wood-Base Materials, or For. 271 — Wood Anatomy and Identification	3
For. 253 — Forest Economics	3
For. 282 — Forest Management	3
Pl. Pa. 204 — Introductory Plant Pathology,[1] or Entom. 120 — Introduction to Applied Entomology	3-4
For. 316 — Advanced Forest Ecology	3
For. 340 — Introduction to Applied Statistics, or Ag. Ec. 261 — Agricultural Economic Statistics, or For. 321 — Forest Biometrics	3-4

Additional elective courses must be completed to bring the total hours for graduation to 126. Students are encouraged to consult the *Agriculture Student Handbook* for a list of recommended electives.

[1] If Pl. Pa. 204 is used to fulfill requirements, students must also enroll in Pl. Pa. 312 — Diseases of Urban Trees (1 hour) or Pl. Pa. 314 — Diseases of Forest Trees (1 hour).

Wood Products Industries Option

The following courses are required:

For. 232 — Wood Utilization II; For. 236 — Physical Properties of Wood and Wood-Base Materials; For. 253 — Forest Economics; For. 271 — Wood Anatomy and Identification; For. 273 — Adhesives and Laminates; For. 340 — Introduction to Applied Statistics, or Ag. Econ. 261 — Agricultural Economic Statistics; For. 372 — Mechanical Properties of Wood and Wood-Base Materials.

Additional elective courses must be completed to bring the total hours for graduation to 126. At least 15 of the elective hours must be from a group of prescribed, restricted electives in such areas as accountancy, business administration, chemistry, finance, forestry, and mathematics. Consult the *Agriculture Student Handbook* for the complete list.

CURRICULUM IN ORNAMENTAL HORTICULTURE

For the degree of Bachelor of Science in Ornamental Horticulture

This curriculum prepares students for careers in the production, marketing, and use of ornamental crops; in teaching, research, or other related professional activities; or in business serving or related to ornamental horticulture. Areas of specialization include landscape horticulture; flower shop and garden center management; nursery crops management; floriculture crops production; and turfgrass management.

Career opportunities include production of flowers and ornamental plants in greenhouses and nurseries; flower shop management and floral designing, landscape design and contracting, park and golf course management; sales representatives and technicians with horticultural firms; employment with state or federal governmental agencies or institutions as teachers, researchers, horticultural advisers, crop inspectors, etc.; consultants; and writers. Students are encouraged to acquire practical experience through employment in ornamental horticultural establishments.

A minimum of 130 hours of credit is required for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Pl. Bio. 100 — Plant Biology	4
Course from group I	0-3
Hort. 100 — Introduction to Horticulture	3
Math. 111 — Algebra, or Math. 112 — College Algebra (see Mathematics, page 99)	3-5
Sp. Com. 111 — Verbal Communication (see English, page 99)	3
Total	15-18

SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry (see Chemistry, page 99)	4
Course from group I	3
Entom. 101 — Introduction to Applied Entomology	3
Math. 114 — Plane Trigonometry	2
Sp. Com. 112 — Verbal Communication	3
Total	15

SECOND YEAR

Chem. 102 — General Chemistry, or Chem. 103 — General Chemistry: Organic Chemical Studies	4
Courses from groups I and II	8-9
Elective	3-4
Total	15-17
Soils 101 — Introductory Soils	4
Courses from groups I and II	6
Econ. 101 — Introduction to Economics	4
Elective	3
Total	17

THIRD AND FOURTH YEARS

The third and fourth years to be devoted to the fulfillment of the group requirements listed below.

Group Requirements

GROUP I: HUMANITIES AND SOCIAL SCIENCES	HOURS
An approved 6 hours in the humanities and a minimum of 9 hours from two departments in the social sciences (including Econ. 101)	15

GROUP II: PRESCRIBED HORTICULTURE AND SUPPORTING COURSES	
Accy. 200 — Fundamentals of Accounting, or Accy. 201 — Principles of Accounting I	3
Pl. Bio. 260 — Introductory Plant Taxonomy, or Pl. Bio. 366 — Field Botany	3-5
Hort. 100 — Introduction to Horticulture	3
Hort. 201 — Identification and Use of Woody Ornamental Plants I	3
Hort. 202 — Identification and Use of Woody Ornamental Plants II	3
Hort. 221 — Plant Propagation	3
Hort. 226 — Bedding Plant Production, Use and Identification	3
Pl. Pa. 204 — Introductory Plant Pathology	3
Total	24-26

GROUP III: HORTICULTURE ELECTIVE COURSES

Minimum of 15 hours to be selected from the following:

Hort. 110 — Plant and Animal Genetics; Hort. 122 — Greenhouse Management; Hort. 210 — Home Grounds Planning and Design; Hort. 211 — Home Grounds Development and Construction; Hort. 212 — Landscape Contracting; Hort. 223 — Floricultural Crops Production I; Hort. 224 — Floricultural Crops Production II; Hort. 227 — Indoor Plant Culture, Use and Identification; Hort. 230 — Herbaceous Perennials, Identification and Use; Hort. 231 — Floral Design I; Hort. 232 — Flower Shop Management and Floral Design II; Hort. 234 — Nursery Management; Hort. 236 — Turfgrass Management; Hort. 242 — Commercial Vegetable Production; Hort. 251 — Arboriculture; Hort. 261 — Small Fruit and Viticulture Science; Hort. 262 — Tree Fruit Science; Hort. 300 — Special Problems (maximum of 5 hours); Hort. 321 — Floricultural Physiology; Hort. 322 — Plant Nutrition; Hort. 323 — Principles of Plant Breeding; Hort. 336 — Perennial Grass Ecosystems; Hort. 345 — Growth and Development of Horticultural Crops.

GROUP IV: AREA OF SPECIALIZATION COURSES

An additional 15 hours consistent with the student's specific career interest is selected in consultation with the faculty adviser from an extensive list of prescribed courses. Included are courses in such areas as accountancy, agricultural economics, agronomy, art, business administration, chemistry, computer science, plant biology, and plant pathology. A complete listing of acceptable courses appears in the *Agriculture Student Handbook*.

CURRICULUM IN SOIL SCIENCE

For the degree of Bachelor of Science in Soil Science

This curriculum is especially designed for students who plan to engage in professional work requiring more soil science, mathematics, chemistry, and physics than is included in the core curriculum in agriculture, or for students who plan to do graduate study in soil science. The curriculum in soil science also prepares the student for positions dealing with the management of natural resources, particularly those involving agricultural, forest, or range soils, and including the effect of land use on environmental quality.

FIRST YEAR FIRST SEMESTER	HOURS
Agr. 100 — Agriculture in Modern Society	1
Rhet. 105 — Composition (see English, page 99)	4
Math. 112 — College Algebra (see Mathematics, page 99)	3
Math. 114 — Trigonometry	2
Soils 101 — Introduction to Soils	4
Social science (see page 99)	3
Total	17

SECOND SEMESTER	HOURS
Agron. 121 — Principles of Field Crop Science	4
Sp. Com. 101 — Principles of Effective Speaking	3
Chem. 101 — General Chemistry	4
Math. 120 — Calculus and Analytic Geometry	5
Total	16

SECOND YEAR

Pl. Bio. 100 — Plant Biology	4
Chem. 102 — General Chemistry	4
Phycs. 101 — General Physics	5
Humanities (see page 99)	3
Total	16
Geol. 107 — General Geology	4
Chem. 122 — Elementary Quantitative Analysis	4
Phycs. 102 — General Physics	5
Econ. 101 — Principles of Economics	4
Total	17

THIRD AND FOURTH YEARS

Courses are chosen in consultation with the student's adviser and must include the following:

Prescribed Courses in Agriculture

Agron. 330 — Plant Physiology 3
Soils 301 — Soil Survey with Emphasis on Illinois Soils 3

Elective Courses in Soils 15
Soils 302 — Soil Testing Practicum; Soils 303 — Soil Fertility and Fertilizers; Soils 304 — Soil Management and Conservation; Soils 305 — Biochemical Processes in Soil and Water Environments; Soils 307 — Soil Chemistry; Soils 308 — Physics of the Plant Environment; Soils 311 — Laboratory Methods for Soil Research; Soils 313 — Soil Mineral Analysis.

Elective Courses in Agronomy 6
Agron. 110 — Plant and Animal Genetics; Agron. 318 — Crop Growth and Production; Agron. 319 — Environment and Plant Ecosystems; Agron. 322 — Forage Crops and Pastures; Agron. 326 — Weeds and Their Control
Elective courses in agriculture to bring total agriculture courses to a minimum of 40
Additional humanities courses (see page 99) to bring total to 6
Additional social sciences courses (see page 99) to bring total to 9
Other prescribed courses:
Microbiology 100 — Introductory Microbiology and Microbiology 101 — Introductory Experimental Microbiology 5
Chemistry 131 — Elementary Organic Chemistry 3
Open electives to bring total hours to 126

PROGRAM IN PREPROFESSIONAL VETERINARY MEDICINE

Most students wishing to complete the preprofessional requirements for veterinary medicine in the College of Agriculture follow Option I of the Agricultural Science curriculum, or the Animal Science or Dairy Science major.

Because of the competition for admission, students should plan a bachelors degree program that will prepare them for a career alternative should admission to the professional program not be obtained. Recently there have been two to three qualified applicants for each space available in the entering class in veterinary medicine. The mean grade-point average of admitted students was slightly above 4.50 (A = 5.0). Specific information about veterinary medicine, including admission requirements, can be found on page 317.

CURRICULUM IN HUMAN RESOURCES AND FAMILY STUDIES

For the degree of Bachelor of Science in Human Resources and Family Studies

This four-year curriculum in the School of Human Resources and Family Studies, College of Agriculture, is designed for students who want to pursue careers in one of the home economics-oriented professions. The human resources and family studies curriculum combines a liberal arts education with the study of various ecological subsystems as they affect and are affected by individuals and families. The 120-130 hours required for graduation include prescribed courses of which at least 28 hours must be in human resources and family studies selected according to the requirements for one of the following options: Consumer Economics, Dietetics, Foods and Nutrition, Foods in Business, General Home Economics, Human Development and

Family Ecology, Institution Management, Marketing of Textiles and Apparel, and Textiles and Apparel.

Students preparing to work professionally in the field of interior design should follow the interior design curriculum (page 125). Those preparing for managerial positions in restaurants and other commercial food service units should meet the requirements specified in the curriculum in restaurant management (page 126) or the Institution Management Option (page 123).

The following number of hours in the designated areas of study and certain specific courses listed below are required in all options of the School of Human Resources and Family Studies curriculum.

	HOURS
Basic disciplines — Design, humanities, natural sciences, and social sciences, to include a minimum of:	40-58
Art and design (studio course)	2-3
Humanities (see page 99)	6
Natural sciences (see page 99) to include: Physical science (minimum 3 hours) and biological science (minimum 3 hours); see option listings for specific science requirements for each option	12
Social sciences to include at least one course in principles of economics and one in psychology (see page 99)	9
Human resources and family studies (home economics)	28-44
Math. 111 or 112, or exemption by Mathematics Placement Test	0-5
Rhet. 105 or 108, or Sp. Com. 111 and 112	4-6
Other option requirements	0-24
Electives, to bring total to 120 or 130	11-52

The suggested program for the first two years of the curriculum, shown in detail below, provides a foundation for the various fields of concentration and allows some variation according to the personal and career objectives of individual students.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
H.R.F.S. 100 — Contemporary Issues in Human Res. and Family Studies	1	Art and design	2-3
H.R.F.S. course	3	H.R.F.S. course(s)	3
Math. 111 — Algebra, or Math. 112 — College Algebra	3-5	Humanities	3
Psych. 100 — Introduction to Psychology	3	Natural science	3-4
Rhet. 105 or 108 — Composition, or Sp. Com. 111 — Verbal Communications	3-4	Sp. Com. 101 — Principles of Effective Speaking or Sp. Com. 112 — Verbal Communications	3
Total	15-16	Total	14-16

SECOND YEAR			
H.R.F.S. course	3	H.R.F.S. course	3
Humanities	3	Natural and/or social sciences	3-7
Natural and/or social sciences	3-7	Other curriculum or option requirements	6-8
Other curriculum or option requirements	3-5	Humanities	0-3
Total	16-17	Total	16-17

THIRD AND FOURTH YEARS

The programs for the third and fourth years are largely determined by the option selected, and must be planned in consultation with the student's faculty adviser. The options are described below. Students should declare an option no later than the second semester of the sophomore year. Human resources and family studies courses as prescribed by the option, plus three H.R.F.S. courses from outside the option area, must total a minimum of 28 hours. Areas are: family and consumer economics, human development and family ecology; foods and nutrition; interior design; and textiles and apparel. (Prescribed courses in the general option include at least one course from each of the five areas.)

Consumer Economics

COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
F.A.C.E. 170 — Consumer Economics	3
F.A.C.E. 270 — Family Financial Management	3
F.A.C.E. 313 — Economics of Consumption	3
F.A.C.E. 370 — Family Economics	3
F.A.C.E. 371 — The Family as a Consuming Unit	3
H.D.F.E. 210 — Comparative Family Organizations	3
Six additional hours selected from: F.A.C.E. 373 — Family Resource Management; F.A.C.E. 361 — Development and Function of Family Housing; F.A.C.E. 375 — Home Equipment; F.A.C.E. 379 — Problems in Family, Consumer, and Consumption Economics.	

Two additional H.R.F.S. courses to be chosen from outside the Family and Consumer Economics Division.

BASIC DISCIPLINE COURSES	HOURS
Art and design — Studio course	2-3
Econ. 101 — Introduction to Economics	4
Econ. 301 — Intermediate Macro-economic Theory	3
Math. 124 — Finite Mathematics	3
Math. 134 — Calculus for Social Scientists	4
Pol. Sci. 150 — American Government	3
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4
Soc. 100 — Introduction to Sociology	3
Natural Sciences electives, including one biological science (see page 99)	6
Humanities electives (see page 99)	6
Basic discipline[1] electives to bring total to	40

OTHER REQUIRED COURSES	HOURS
Chem. 100 — Introductory Chemistry or exemption	2
Adv. 281 — Introduction to Advertising, or B.A. 337 — Promotion Management	3
Ag. Com. 114 — Agriculture Communications Media and Methods	3
B.A. 202 — Principles of Marketing	3
Econ. 172 — Economic Statistics I	3
Open electives to bring total to	120

[1] Basic disciplines are art and design, humanities, natural sciences, and social sciences.

Dietetics

COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
F.N. 130 — Food Selection and Preparation	3
F.N. 131 — Food Management	3
F.N. 220 — Principles of Nutrition	3
F.N. 231 — Science of Foods	3
F.N. 240 — Quantity Food Production and Service	3-5
F.N. 320 — Diet in Disease	3
F.N. 324 — Biochemical Aspects of Human Nutrition	3
F.N. 345 — Institution and Restaurant Management: Food Purchasing and Equipment Selection	3
F.N. 350 — Institution and Restaurant Management: Organization and Administration	4
One course selected from: F.N. 322 — Nutrition through Life Cycle, F.N. 330 — Experimental Foods, F.N. 355 — Specialized Quantity Food Production and Management, or Accy. 200 — Fundamentals of Accounting	3
Three additional H.R.F.S. courses chosen from areas other than foods, nutrition, or institution management	6-12

BASIC DISCIPLINE COURSES	HOURS
Art and design studio course	2-3
Chem. 101 — General Chemistry	4
Chem. 102 — General Chemistry	4
Chem. 122 — Elementary Quantitative Analysis, or Chem. 123 — Quantitative Analysis	3
Chem. 131 — Elementary Organic Chemistry	3
Chem. 134 — Elementary Organic Chemistry Laboratory	2
Bioch. 350 — General Biochemistry, or Bioch. 352 — General Biochemistry I, and Bioch. 353 — General Biochemistry II	3-8
Bioch. 355 — Biochemistry Laboratory	4
Econ. 101 — Introduction to Economics	4
Humanities electives (see page 99)	6
Mcbio. 100 — Introductory Microbiology, and Mcbio. 101 — Introductory Experimental Microbiology	5
Physl. 103 — Introduction to Human Physiology, or Biol. 110 — Principles of Biology I and Biol. III — Principles of Biology II	4
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4
Social sciences electives (see page 99)	3

OTHER REQUIRED COURSES	HOURS
B. Adm. 210 — Management and Organizational Behavior, or B. Adm. 247 — Introduction to Management	3
B. Adm. 321 — Individual Behavior in Organizations, B. Adm. 351 — Personnel Administration, or Psych. 245 — Industrial Psychology	3
Ed. Psy. 211 — Educational Psychology	3

Statistics[1] 3
Total 126

[1] Select from Econ. 171, 172; Psych. 233, 235; Soc. 185, 385; Agron. 340; Math. 161; Ed. Psy. 390.

Foods and Nutrition

PRESCRIBED COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
F.N. 130 — Food Selection and Preparation	3
F.N. 131 — Food Management	3
F.N. 220 — Principles of Nutrition	3
F.N. 231 — Science of Food	3
F.N. 324 — Biochemical Aspects of Human Nutrition	3
F.N. 330 — Experimental Foods	3
Three additional hours from F.N. 240 — Quantity Food Production and Service, F.N. 320 — Diet in Disease, F.N. 321 — Experimental Nutrition, F.N. 322 — Physical Growth and Nutrition, or F.N. 331 — Problems in Foods	2-3
Additional H.R.F.S. courses, including three courses chosen from areas other than foods, nutrition, or institution management.	

BASIC DISCIPLINE COURSES	HOURS
Art and design studio course	2-3
Chem. 101 — General Chemistry	4
Chem. 102 — General Chemistry	4
Chem. 122 — Elementary Quantitative Analysis, or Chem. 123 — Quantitative Analysis	3
Chem. 131 — Elementary Organic Chemistry	3
Chem. 134 — Elementary Organic Chemistry Laboratory	2
Bioch. 350 — General Biochemistry, or Bioch. 352 — General Biochemistry I, and Bioch. 353 — General Biochemistry II	3-8
Bioch. 355 — Biochemistry Laboratory	4
Econ. 101 — Introduction to Economics	4
Humanities electives (see page 99)	6
Math. 114 — Plane Trigonometry	2
Math. 120 — Calculus and Analytic Geometry	5
Mcbio. 100 — Introductory Microbiology, and Mcbio. 101 — Introductory Experimental Microbiology	5
Physl. 103 — Introduction to Human Physiology, or Biol. 110 — Principles of Biology I and Biol. III — Principles of Biology II	4
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4
Social sciences electives (see page 99)	3
Statistics[1]	3
Open electives to bring total to	126

[1] Select from Econ. 171, 172; Psych. 233, 235; Soc. 185, 385; Agron. 340; Math. 161, Ed. Psy. 390.

Foods in Business

COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
F.N. 130 — Food Selection and Preparation	3
F.N. 131 — Food Management	3
F.N. 220 — Principles of Nutrition	3
F.N. 231 — Science of Food	3
F.N. 330 — Experimental Foods	3
Six hours from: F.N. 326 — Presentations: Principles and Techniques, F.N. 331 — Problems in Foods, or F.A.C.E. 375 — Home Equipment	6
Additional H.R.F.S. courses, including three courses chosen from areas other than foods, nutrition, or institution management.	

BASIC DISCIPLINE COURSES[1]	HOURS
Art and design studio course	2-3
Chem. 101 — General Chemistry	4
Chem. 102 — General Chemistry, or Chem. 103 — General Chemistry: Organic Chemical Studies	4
Econ. 101 — Introduction to Economics	4
Humanities electives (see page 99)	6
Mcbio. 100 — Introductory Microbiology, and Mcbio. 101 — Introductory Experimental Microbiology	5
Physl. 103 — Introduction to Human Physiology	4
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4

Social sciences elective (see page 99) 3
Basic discipline electives to bring total to 40

OTHER REQUIRED COURSES	HOURS
B. Adm. 202 — Principles of Marketing	3
B.&T.W. 251 — Business and Administrative Communications	3
B.&T.W. 271 — Sales Writing, B.&T.W. 272 — Report Writing, or Sp. Com. 230 — Interpersonal Communications	3
F.S. 260 — Raw Materials for Processing, or Ag. Econ. 335 — Food Marketing	4
Sp. Com. 101 — Principles of Effective Speaking	3
Statistics[2]	3
Twelve hours from: Accy. 200; Adv. 281. Com. 214, 240, 300, 320; B. Adm. 200, 206, 210, 212, 247; F.A.C.E. 313, 370, 371; F.N. 202, 204, 250, 322; F.S. 314, 315; Journ. 223, 326; Comm. 261; Sp. Com. 211, 221; a micro-computer course.	
Open electives to bring total to	126

[1] Basic disciplines are art (design), humanities, natural sciences, and social sciences.
[2] Select from Econ. 171, 172; Psych. 233, 235; Soc. 185, 385; Agron. 340; Math. 161; Ed. Psy. 390.

General Home Economics

COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
F.A.C.E. 170 — Consumer Economics	3
F.A.C.E. 270 — Family Financial Management	3
F.N. 120 — Contemporary Nutrition	3
F.N. 130 — Food Selection and Preparation	3
H.D.F.E. 105 — Introduction to Human Development	3
H.D.F.E. 110 — Introduction to Family Ecology	3
I.D. 160 — Residential Environments	3
T.A. 183 — Consumer Textiles	3
Additional electives in H.R.F.S., including a minimum of 12 hours at the 200-300 level, with at least two courses at the 300 level, to bring total to	45

BASIC DISCIPLINE COURSES	HOURS
Art & D 185 — Design	3
Chem. 101 — General Chemistry	4
Chem. 102 — General Chemistry, or Chem. 103 — General Chemistry: Organic Chemical Studies	4
Econ. 101 — Introduction to Economics	4
Humanities (see page 99)	6
Mcbio. 100 — Introductory Microbiology	3
Physl. 103 — Introduction to Human Physiology	4
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4
Soc. 100 — Introduction to Sociology	3
Basic discipline[1] electives to bring total to	40
Open electives to bring total to	126

[1] Basic disciplines are art and design, humanities, natural sciences, and social sciences.

Human Development and Family Ecology

PRESCRIBED COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
F.N. 120 — Contemporary Nutrition	3
H.D.F.E. 105 — Introduction to Human Development	3
H.D.F.E. 106 — Observation and Assessment of Human Development	3
H.D.F.E. 202 — Child Development Methods and Experience, or H.D.F.E. 310 — Contemporary American Family	3-4
H.D.F.E. 203 — Infancy and Early Development, or H.D.F.E. 214 — Introduction to Aging, or H.D.F.E. 316 — Adolescence, or H.D.F.E. 370 — Family Conflict Management	3-4
H.D.F.E. 210 — Comparative Family Organization	3
H.D.F.E. 301 — Issues in Socialization and Development	3
Additional H.R.F.S. courses, including two courses chosen from areas other than human development and family ecology, to bring total to	28

BASIC DISCIPLINE COURSES	HOURS
Anth. 103 — Introduction to Cultural Anthropology	4
Art and design studio course	2-3
Biological sciences: genetics and one other (see page 99)	5-8
Econ. 101 — Introduction to Economics	4
Humanities electives (see page 99)	6

Physl. 103 — Introduction to Human Physiology 4
Physical sciences electives (see page 99) 3
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology 3-4
Social sciences electives (see page 99) 6
Sociology, or rural sociology 3
Open electives to bring total to 120

Institution Management

COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
F.N. 130 — Food Selection and Preparation	3
F.N. 131 — Food Management	3
F.N. 220 — Principles of Nutrition	3
F.N. 231 — Science of Foods	3
F.N. 240 — Quantity Food Production and Service	3-5
F.N. 330 — Experimental Foods	3
F.N. 345 — Institution and Restaurant Management: Food Purchasing and Equipment Selection	3
F.N. 350 — Institution and Restaurant Management: Organization and Administration	4
F.N. 355 — Specialized Quantity Food Production and Management	3
Three additional courses chosen from areas other than foods, nutrition, or institution management	6-12

BASIC DISCIPLINE COURSES	HOURS
Art and design	2-3
Chem. 101 — General Chemistry	4
Chem. 102 — General Chemistry, or Chem. 103 — General Chemistry: Organic Chemical Studies	4
Econ. 101 — Introduction to Economics	4
Humanities electives (see page 99)	6
Mcbio. 100 — Introduction to Microbiology, and Mcbio. 101 — Introductory Experimental Microbiology	5
Physl. 103 — Introduction to Human Physiology	4
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4
Basic discipline[1] electives to bring total to	40

OTHER REQUIRED COURSES	HOURS
Accy. 201 — Principles of Accounting, I	3
Accy. 202 — Principles of Accounting, II	3
B. Adm. 210 — Management and Organizational Behavior, or B. Adm. 247 — Introduction to Management	3
B. Adm. 321 — Individual Behavior in Organizations, B. Adm. 351 — Personnel Administration, or Psych. 245 — Industrial Psychology	3
Econ. 341 — Economics of the Labor Market, or Econ. 343 — Unions, Bargaining, and Public Policy	3
Sp. Com. 101 — Principles of Effective Speaking	3
Statistics[2]	3
Total	126

[1] Basic disciplines are art and design, humanities, natural sciences, and social sciences.
[2] Select from Econ. 171, 172; Psych. 233, 235; Soc. 185, 385; Agron. 340; Math. 161; Ed. Psy. 390.

Marketing of Textiles and Apparel

COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
T.A. 184 — Apparel Design and Selection	3
T.A. 182 — Apparel Production Analysis	3
T.A. 183 — Consumer Textiles	3
T.A. 295 — Textile and Apparel Marketing	3
T.A. 296 — Administrative Retailing	3
T.A. 395 — Concepts and Cases in Retailing	3
Nine hours chosen from: T.A. 250 — Textile and Apparel Practicum, T.A. 280 — Household Textiles, T.A. 281 — Retailing of Home and Apparel Accessories, T.A. 284 — Costume Design, T.A. 285 — History of Costume, T.A. 286 — Clothing Design: Flat Pattern, T.A. 287 — Dress and Human Behavior, T.A. 350 — Textile and Apparel Business Practicum, T.A. 380 — Advanced Textiles, T.A. 386 — Apparel Design: Draping, or T.A. 388 — Problems in Textiles and Apparel	9
Two additional H.R.F.S. courses in areas other than textiles, and interior design.	

BASIC DISCIPLINE COURSES	HOURS
Art Hi. 115 — Art Appreciation, or Art Hi. 116 — Masterpieces of Art	3
Art & D. 185 — Design	3
Art & D. 186 — Design	3
Chem. 101 — General Chemistry	4
Chem. 102 — General Chemistry, or Chem. 103 — General Chemistry: Organic Chemical Studies	4
Econ. 101 — Introduction to Economics	4
Econ. 313 or F.A.C.E. 313 — Economics of Consumption	3
Humanities electives (see page 99)	3-4
Math. 134 — Calculus for Social Scientists	4
Mcbio. 100 — Introductory Microbiology, and Mcbio. 101 — Introductory Experimental Microbiology, or Physl. 103 — Introduction to Human Physiology	4-5
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4
Psych. 201 — Introduction to Social Psychology	3
Soc. 100 — Introduction to Sociology	3

OTHER REQUIRED COURSES	HOURS
Accy. 201 — Fundamentals of Accounting, or Accy. 101 and 105 — Principles of Accounting I and II	3-6
Adv. 281 — Introduction to Advertising	3
B. Adm. 202 — Principles of Marketing	3
B. Adm. 212 — Retail Management	3
B.&T.W. 251 — Business and Administrative Communication	3
Sp. Com. 101 — Principles of Effective Speaking	3
Econ. 172 — Economic Statistics	3
Open electives to bring total to	120

Textiles and Apparel

COURSES IN HUMAN RESOURCES AND FAMILY STUDIES	HOURS
T.A. 182 — Apparel Production Analysis	3
T.A. 183 — Consumer Textiles	3
T.A. 184 — Introduction to Apparel Design	3
T.A. 190 — Cross-Cultural Analysis of Dress	3
T.A. 295 — Textile and Apparel Marketing	3
Fifteen hours selected from: T.A. 250 — Textile and Apparel Business Internship; T.A. 280 — Household Textiles; T.A. 281 — Non-textile Accessories; T.A. 284 — Apparel Design for the Market; T.A. 285 — History of Costume; T.A. 286 — Apparel Design: Flat Pattern; T.A. 287 — Dress and Human Behavior; T.A. 291 — Thesis; T.A. 380 — Advanced Textiles; T.A. 385 — History of Textiles; T.A. 388 — Problems in Textiles and Clothing	
Additional H.R.F.S. courses, including three courses in areas other than textiles and apparel	15

BASIC DISCIPLINE COURSES	HOURS
Art Hi. 115 — Art Appreciation, or Art Hi. 116 — Masterpieces of Art, or Art Hi. 111 — Ancient and Medieval Art, and Art Hi. 112 — Renaissance and Modern Art[1]	3
Art & D. 185 — Design, or Art G.P. 119 — Design I	3
Chem. 101 — General Chemistry	4
Chem. 102— General Chemistry, or Chem. 103 — General Chemistry: Organic Chemical Studies	4
Econ. 101 — Introduction to Economics	4
Humanities electives	3
Biological science with lab	4
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4
Soc. 100 — Introduction to Sociology	3
Psych. 201, or Soc. 201 — Introduction to Social Psychology	3
Basic discipline[2] electives to bring total to	40
Open electives to bring total to	120

OTHER REQUIRED COURSES	HOURS
B.&T.W. 251 — Business and Administrative Communication	3
Sp. Com. 101 — Principles of Effective Speaking	3
Statistics[3]	3
Total required hours	120

[1] If taken, no additional humanities required.
[2] Basic disciplines are art and design, humanities, natural sciences, and social sciences.
[3] Select from Econ. 171, 172; Soc. 185; Psych. 233, 234, 235; Agron. 340.

CURRICULUM IN INTERIOR DESIGN

For the degree of Bachelor of Science in Interior Design

The interior design curriculum is for those students wishing to work professionally in the field of interior design. Emphasis is on creating optimal human environments through interior space planning and environmental design. Graduates are employed by interior design and space planning studios, department and retail furniture stores, and county cooperative extension and urban renewal resource offices.

The 120 credit hours required for graduation include 24 credit hours in professional interior design courses, 12 to 14 credit hours in other human resources and family studies courses, 28 credit hours in art, 40 to 42 credit hours in liberal arts, and 24 to 36 credit hours in electives.

Suggested Sequence of Courses

Field trips are required. Estimated cost: $30 each trip.

Two summers' experience, of a minimum of eight weeks each, or equivalent, in the interior design field is recommended and should be completed before registering in I.D. 378. This experience normally should come at the end of the second and third years.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
H.R.F.S. 100 — Contemporary Issues in Human Resources and Family Studies	3	T.A. 183 — Consumer Textiles[1]	3
I.D. 160 — Residential Environments	3	Art G.P. 117 — Drawing, I	3
I.D. 161 — Introduction to Interior Design	3	Art G.P. 119 — Design, I	3
Math. 111 — Algebra, or Math. 112 — College Algebra	3-5	Sp. Com. 101 — Principles of Effective Speaking	3
Rhet. 105 — Principles of Composition, or Rhet. 108 — Forms of Composition	4	Soc. 100 — Introduction to Sociology	3
Total	16-18	Total	15
SECOND YEAR			
Art G.P. 121 — Drawing Theory	2	Art G.P. 120 — Design II	3
Art G.P. 118 — Drawing, II	3	Art G.P. 122 — Drawing Theory	2
Art Hi. 111 — Introduction to Ancient and Medieval Art	4	Art Hi. 112 — Introduction to Renaissance and Medieval Art	4
Natural science elective	4	T.A. 280 — Textiles for Interiors	3
Psych. 100 — Introduction to Psychology	3	H.R.F.S. elective[2]	3
Total	16	Total	15
THIRD YEAR			
I.D. 260 — Interiors and Furniture I	3	I.D. 261 — Interiors and Furniture II	3
I.D. 262 — Interior Design Studio, II	3	I.D. 263 — Interior Design Studio III	3
Art elective[3]	2	Anthropology (Cultural)	4
Natural science elective	4	Art elective	2
H.R.F.S. elective	3	Open elective	3
Total	15	Total	15
FOURTH YEAR			
Restricted I.D. elective[4]	3	Restricted I.D. elective	3
Econ. 101 — Intro. to Economics	4	Open electives	12
H.R.F.S. elective	3	Total	15
Open electives	6		
Total	16		
Total hours required	120		

[1] Prerequisite is high school chemistry of Chem. 100. Students not having high school chemistry should substitute natural science requirement.

[2] Minimum of three courses in textiles and apparel, family and consumer economics, foods and nutrition, or human development and family ecology.

[3] To be chosen from Art G.P. 132, Art P.A. 141, 142, 201.

[4] To be chosen from I.D. 250, 360, 361, 378, 380.

Concentration in Journalism for Human Resources and Family Studies Majors

Students may wish to combine a Human Resources and Family Studies option with courses in journalism. For students interested in combining journalism, advertising, and broadcast-journalism with one of the programs of study in the School of Human Resources and Family

Studies, a program of 20 hours of courses offered by the College of Communications is recommended by that college and the school. A journalism concentration combined with one of the options can further enhance a student's employment opportunities in business, industry, and government.

CURRICULUM IN RESTAURANT MANAGEMENT

For the degree of Bachelor of Science in Restaurant Management

The curriculum in restaurant management prepares students for managerial positions in restaurants and other commercial food service units. It also gives them basic training for work as purchasing agents, kitchen equipment and layout specialists, food inspectors, and other allied occupations. A total of 126 hours of credit is required for graduation.

Two summers (a minimum of eight weeks each), or equivalent, of practical restaurant experience are required and must be completed before registering in F.N. 355. This experience normally should come at the end of the second and third years.

FIRST YEAR FIRST SEMESTER	HOURS
H.R.F.S. 100 — Contemporary Issues in Human Resources and Family Studies I	1
Math. 111 — Algebra, or Math. 112 — College Algebra	3-5
Chem. 100 — Intro. Chem. (see Chemistry, page 99)	2
Psych. 100 — Introduction to Psychology, or Psych. 103 — Introduction to Experimental Psychology	3-4
Rhet. 105 or 108 — Composition (see English, page 99)	4
F.N. 120 — Contemporary Nutrition	3
Total	16-19

SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	4
Mcbio. 100 and 101 — Introduction to Microbiology and Introduction to Experimental Microbiology	5
Soc. 100 — Introduction to Sociology	3
Sp. Com. 101 — Principles of Effective Speaking	3
F.N. 130 — Food Selection and Preparation	3
Total	18

SECOND YEAR

An. Sc. 109 — Meat Purch. and Preparation	2
Chem. 102 — General Chemistry or Chem. 103 — General Chemistry: Organic Chemical Studies	4
Econ. 101 — Introduction to Economics	4
F.N. 131 — Food Management	3
Humanities (see page 99)	3
Total	16
Summer experience — 8 weeks	

Econ. 172 — Economic Statistics I	3
Accy. 201 — Principles of Accountancy I	3
F.N. 231 — Science of Foods	3
B.&T.W. 251 — Business and Administrative Communication	3
Humanities elective	3
Total	15

THIRD YEAR

Accy. 202 — Principles of Accountancy II	3
F.N. 240 — Quantity Food Production and Service	3-5
F.N. 345 — Institution and Restaurant Management: Food Purchasing	3
B. Adm. 202 — Principles of Marketing	3
Econ. 240 — Labor Problems	3
Total	15-17
Summer experience — 8 weeks, or F.N. 250 — Food Nutrition Internship	

B. Adm. 210 — Management and Organizational Behavior, or B. Adm. 247 — Introduction to Management	3
B. Adm. 261 — Summary of Business Law	3
H.R.F.S. elective	3
Open electives	6
Total	15

FOURTH YEAR

B. Adm. 321 — Individual Behavior in Organizations, B. Adm. 351 — Personnel Administration, or Psych. 245 — Industrial Organizational Psychology	3
H.R.F.S. elective	3
Open electives	19
Total	15
Total hours	**126**

F.N. 350 — Institution and Restaurant Management: Organization and Administration	4
F.N. 355 — Specialized Quantity Food Production and Management	4
Open electives	9
Total	17

CURRICULUM IN VOCATIONAL HOME ECONOMICS EDUCATION

For the degree of Bachelor of Science in Home Economics Education

The purpose of this curriculum is to prepare students to teach home economics to youth and adults in both school and nonschool settings. Students may choose one of the following areas:

I. General Home Economics Education
II. Human Development and Child Care Occupations
III. Foods and Nutrition and Food Service Occupations
IV. Textiles and Clothing and Related Occupations
V. Interior Design and Equipment and Related Occupations
VI. Consumer Education and Home Management
VII. Teaching Home Economics in Nonschool Settings

A minimum of 130 semester hours is required for graduation. For teacher education requirements applicable to all curricula, see pages 87 to 91.

General Education — Required in Areas I-VII

	HOURS
American government (Areas I-VI only)	3
Art & D. 185 or an acceptable alternative	2-3
Art & D. 186 (Areas I, IV, V only)	3
Chem. 101	4
Chem. 102 or 103	4
Econ. 101	4
Humanities (see page 99)	6
Math. 111 or 112 (or exemption)	5-3 or 0
Mcbio. 100, 101	5
Physical education and/or health education (Areas I-VI only)	3
Physl. 103 — Introductory Human Physiology	4
Psych. 100 or 103	3
Rhet. 105 or 108 and Sp. Com. 101 or 141 (or Sp. Com. 111 and 112)	7-6
U.S. History (Areas I-VI only)	3-4
Total	50-58

Professional Education — Required in Areas I-VI

	HOURS
Ed. Psy. 211	3
E.P.S. 201	3
Vo. Tec. 101, 240, and 278	7
Se. Ed. 241	3
Ed. Pr. 150 and 242	5
Vo. Tec. 309, or Sp. Ed. 307, or acceptable alternative	3-4
Total	29

Professional Education — Required in Area VII

	HOURS
Ed. Psy. 211	3
Vo. Tec. 101 and 152	4
Vo. Tec. 240 and 278	5
Sec. Ed. 241	3
A.H.C.E. 362	4
E.P.S. 201	3
Vo. Tec. 252	8
Total	30

Human Resources and Family Studies Courses (Home Economics)

The student may choose one of the following six areas. For Area I (General), requirements include 44 or 45 hours of specific home economics courses. Areas II through VI are specialized programs which require at least 36 hours in home economics with at least 6 hours at the 300 level. At least 18 hours in H.R.F.S. courses must be taken at the 200- to 300-level.

AREA I: GENERAL HOME ECONOMICS EDUCATION[1]	HOURS
H.D.F.E. 105 — Introduction to Human Development	3
H.D.F.E. 106 — Observation and Assessment of Behavior, or H.D.F.E. 202 — Child Development Methods and Experiences	4
F.N. 120 — Contemporary Nutrition	3
F.N. 130 — Food Selection and Preparation	3
F.N. 131 — Food Management	3
I.D. 160 — Residential Environments	3
T.A. 183 — Consumer Textiles	3

T.A. 184 — Apparel Design and Selection 2
H.D.F.E. 110 — Introduction to Family Ecology, or H.D.F.E. 215 — Courtship and Marriage 3
F.N. 220 — Principles of Nutrition. 3
F.N. 231 — Science of Foods 3
F.A.C.E. 270 — Family Financial Management 3
F.A.C.E. 373 — Family Resource Management 3
H.D.F.E. 214 — Introduction to Aging, or H.D.F.E. 304 — Gerontology, or alternative 3
Six hours from:
H.D.F.E. 301 — Issues in Socialization and Development; H.D.F.E. 304 — Gerontology; H.D.F.E. 310 — Contemporary American Family; H.D.F.E. 315 — Critical Transitions in Families
F.N. 322 — Physical Growth and Nutrition
F.N. 330 — Experimental Foods
F.A.C.E. 313 — Economics of Consumption
F.A.C.E. 361 — Development and Function of Family Housing
F.A.C.E. 370 — Family Economics
F.A.C.E. 371 — The Family as a Consuming Unit
F.A.C.E. 375 — Home Equipment
T.A. 380 — Advanced Textiles
T.A. 386 — Apparel Design and Draping
Minimum total. 47

AREA II: HUMAN DEVELOPMENT AND CHILD CARE OCCUPATIONS[1]

Minimum of 12 hours in child and family, including basic courses in human development (e.g., H.D.F.E. 105 and 106) and in the family (e.g., H.D.F.E. 210)
Minimum of 6 hours in foods and nutrition
Minimum of 6 hours in one of the following specializations:
Housing and interior design
Home management, family economics, and equipment
Textiles and apparel
H.R.F.S. electives, 12 to 21 hours (for minimum of 36 hours)

AREA III: FOODS AND NUTRITION AND FOOD SERVICE OCCUPATIONS[1]

Foods and nutrition courses:
F.N. 120 — Contemporary Nutrition
F.N. 130 — Food Selection and Preparation
F.N. 131 — Food Management
F.N. 220 — Principles of Nutrition
F.N. 231 — Science of Food
F.N. 240 — Quantity Food Production and Service
At least one of the following:
F.N. 322 — Physical Growth and Nutrition
F.N. 330 — Experimental Foods
F.N. 345 — Institution and Restaurant Management: Food Purchasing and Equipment Selection
F.N. 350 — Institution and Restaurant Management: Organization and Administration
Minimum of 6 hours *each* in two of the following specializations:
Child and family
Housing and interior design
Home management, family economics, and equipment
Textiles and apparel
H.R.F.S. elective, 7 to 15 hours (for minimum of 36 hours)

AREA IV: TEXTILES AND APPAREL AND RELATED OCCUPATIONS[1]

Minimum of 12 hours in textiles and apparel courses
Minimum of 6 hours *each* in two of the following specializations:
Child and family
Housing and interior design
Home management, family economics, and equipment
Foods and nutrition
H.R.F.S. electives, 12 to 21 hours (for minimum of 36 hours)

AREA V: HOUSING, INTERIOR DESIGN, EQUIPMENT, AND RELATED OCCUPATIONS[1]

Minimum of 14 hours from the following:
I.D. 160 — Residential Environments
I.D. 161 — Interior Design Studio I
T.A. 183 — Consumer Textiles
I.D. 260 — Interiors and Furniture I
I.D. 261 — Interiors and Furniture II
I.D. 262 — Interior Design
T.A. 280 — Household Textiles
F.A.C.E. 361 — Development and Function of Family Housing
F.A.C.E. 375 — Home Equipment

I.D. 378 — Problems in Interior Design
F.A.C.E. 378 — Problems in Management, Equipment, and Housing

Minimum of 6 hours *each* in two of the following specializations:
Child and family
Home management, family economics, and equipment
Foods and nutrition
Textiles and apparel

H.R.F.S. electives, 10 to 19 hours (for minimum of 36 hours)

AREA VI: CONSUMER EDUCATION AND HOME MANAGEMENT[1]

Minimum of 12 hours from the following:
F.A.C.E. 170 — Consumer Economics
F.A.C.E. 270 — Family Financial Management
F.A.C.E. 313 — Economics of Consumption
F.A.C.E. 370 — Family Economics
F.A.C.E. 371 — The Family as a Consuming Unit
F.A.C.E. 373 — Family Resource Management
F.A.C.E. 375 — Household Equipment
F.A.C.E. 379 — Problems in Family and Consumption Economics

Minimum of 6 hours *each* in two of the following specializations:
Child and family
Housing and interior design
Foods and nutrition
Textiles and apparel

Human Resources and Family Studies electives, 12 to 21 hours (for minimum total of 36 hours)

AREA VII: TEACHING HOME ECONOMICS IN NONSCHOOL SETTINGS

Minimum of three courses from F.N. 130, 131, 220, 231, 320, 322
Minimum of three courses from F.A.C.E. 170, 175, 270, 361, 371, 373, 375
Minimum of three courses from H.D.F.E. 105, 106, 110, 202, 214, 215, 301, 304, 315
Minimum of three courses from I.D. 160, T.A. 183, 184, 280, 281, 286, 380
Above H.R.F.S. courses must total a minimum of 42 hours
At least 18 hours must be at the 200-300 level including two courses at the 300 level.

[1] At least 8 semester hours are required for authorization to teach specialized semester courses in any home economics area; e.g., to teach a semester course in child development for high school students would require 8 hours of preparation in child or human development.

College of Applied Life Studies

108 Huff Hall, 1206 South Fourth Street, Champaign, IL 61820

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The College of Applied Life Studies prepares men and women for scientific and professional careers in fields associated with the promotion of human health and well-being.

The three academic departments offer the Bachelor of Science, Master of Science, and Doctor of Philosophy degrees in the areas of study outlined below. In addition to career opportunities in such fields as health planning and administration, gerontology, sports medicine, commercial recreation, community health education, rehabilitation, corporate physical fitness, and therapeutic recreation, certain programs may serve as a first step toward careers in medicine, business, and journalism, among others.

A distinguished faculty has kept each of the academic departments at or near the top of all recent national rankings. The college will continue to provide exciting educational opportunities in research, teaching, and service leading to a wider range of career options.

DEPARTMENTS

The college includes three academic departments, Health and Safety Studies, Leisure Studies, and Physical Education.

— Average class size: 21.
— Advising services are available in each of the academic units to assist in career selection and development of appropriate courses of study.
— Flexible curricula with numerous options are offered by all of the academic departments.
— Honors programs are available for outstanding students.
— Practicum experiences are required within all departmental curricula. Quality placements are available throughout the United States and around the world.
— Study abroad programs are available in Germany.
— Students have access to the nation's third largest academic library, including an excellent college library, reference service, interlibrary loan system, and term paper counseling.

The college also includes two service divisions, Campus Recreation and Rehabilitation-Education Services.

— Students, faculty, and staff may use the services provided by the Division of Campus Recreation, including the diverse facilities available at the Intramural–Physical Education (IMPE) Building (indoor/outdoor swimming pools, racquetball courts, four gymnasia, etc.).
— Students with physical or sensory impairments may use the services available at the Rehabilitation-Education Center, including orientation, mobility, and reader services for students who are visually impaired, and physical therapy, wheelchair sports, and other programs designed to give the physically or sensory impaired the skills they need to become independent and productive members of society.

In addition, there is an interdisciplinary research institute, the Institute for Child Behavior and Development (ICBD).

— ICBD has established a national reputation for its work in the following areas: gerontology, motivation, psychopharmocology, school achievement assessment, and text anxiety in schools. The institute is in the process of expanding its mission to embrace research studies that cover the entire human lifespan.

Health and Safety Studies

Community Health Education. Examining the relationship between community health and educational interventions including the process of assisting people to adopt and maintain healthful practices, lifestyles, and decision-making skills. This curriculum prepares the student for roles at all levels of government as well as in health agencies, hospitals, business, and industry.

Health Planning and Administration. Understanding factors which affect the health status of people and the health care delivery process. Prepares the student for entry-level positions in planning and administration of health programs in health care facilities and related government agencies.

Leisure Studies

Outdoor Recreation Planning and Management. Development of a resource-based approach related to the delivery of leisure services and recreational uses of natural resource lands. Career opportunities include employment with the forest service, park service, state parks, environmental education centers, and outdoor education programs.

Program Management. Preparation for the design, implementation, and management of leisure services and delivery systems. Includes career opportunities in public recreation systems, commercial agencies, voluntary agencies, and the armed forces.

Therapeutic Recreation. Delivery of leisure services to individuals with physical, mental, emotional, or social disabilities. Prepares students to work in clinical and treatment settings, long-term health care facilities, residential institutions, and community-based recreation agencies.

Physical Education

Athletic Training Emphasis. Approved by the National Athletic Trainers Association and designed for students interested in athletic training as a career or as an adjunct to a career. Including extensive practicum as a student trainer, Athletic Training Emphasis is taken in conjunction with a concentration in another area of physical education.

Bioscience. Scientific analysis of human movement. Career opportunities include employment in the health care and physical fitness industries.

Coaching Endorsement. Available to all students interested in coaching preparation in addition to State of Illinois teaching certification at the elementary or secondary level.

Curriculum and Instruction in Physical Education. Preparation for the teaching of human movement in a variety of settings. May lead to State of Illinois certification in physical education, grades kindergarten to 6 or grades 6 to 12.

Personalized Concentration in Physical Education. Opportunity to design and follow an individualized course of study with greater flexibility (both depth and breadth) than other concentrations within the physical education curriculum. Allows students with multiple academic interests to span more than one established area of concentration while focusing on a specific educational goal.

Social Science of Sport. Primarily concerned with the effect of social and political organization, cultural aspects, and social relationships on human motor behavior. Prepares students for advanced study or employment in physical education and sport organizations.

Admission Requirements

Minimum requirements for consideration for admission are three years of English, one year of algebra, and one year of geometry. However, beginning freshmen will be at a disadvantage if they have not completed at least one year of high school biology and high school chemistry.

Recommended courses:

English: college preparatory, four years
Mathematics: algebra, two years; geometry, one year; trigonometry, one semester; advanced mathematics, one semester
Foreign language: two years
Science: biology, one year; chemistry, one year
Social studies: two years

Once the high school course work requirements are fulfilled, qualifications for admission are primarily determined by a combination of class rank at the end of the junior year with the highest test score (SAT or ACT) on file at the time of the admission decision. These two factors are used to predict an applicant's likelihood of academic success, and one may help to offset the other. For example, an applicant may compensate for a lower test score with a higher class rank.

Transfer applicants must have attained junior standing (60 semester hours of transferable credit) by their desired date of entry. Lower-division transfer students (less than 60 semester hours) must petition for admission. Admission is competitive, based upon cumulative grade-point average. The campus-wide minimum is 3.25 (5.0 = A).

SPECIAL PROGRAMS

International Exchange Program in Germany

The College of Applied Life Studies offers juniors a two-semester program in physical education, health education, and recreation at the Deutsche Sporthochschule in Germany. Full credit is received for participation in the program and overall costs are slightly less than a year at a comparable U.S. institution. Interested students should contact the Department of Physical Education, University of Illinois at Urbana-Champaign, 155 Freer Hall, 906 South Goodwin Avenue, Urbana, IL 61801.

HONORS PROGRAMS

Graduation from the College of Applied Life Studies with any honors designation requires that a student must have attained at the University of Illinois at Urbana-Champaign a specific minimum cumulative grade-point average based on a minimum of 55 semester hours.

Bronze Tablet (See page 79)
Highest Honors, 4.75 to 5.0
High Honors, 4.50 to 4.74
Honors, 4.25 to 4.499

Curricula

CURRICULUM IN HEALTH AND SAFETY STUDIES

The Department of Health and Safety Studies offers a Bachelor of Science degree in two options: Community Health Education and Health Planning and Administration.[1] While all options require 128 hours for graduation, each is individualized to its own speciality.

Students selecting the options in Community Health Education or Health Planning and Administration are required to complete a field work course during their junior or senior year.

Individuals pursuing a degree in Health and Safety Studies are interested in promoting the health of people and their communities through program planning, implementation, and evaluation. Health and safety specialists are employed in a variety of settings, including schools, community agencies, industries, and clinics. For further information about the field of Health and Safety Studies, contact the Department of Health and Safety Studies, University of Illinois at Urbana-Champaign, 117 Huff Hall, 1206 South Fourth Street, Champaign, IL 61820.

General Education Requirements

COMMUNICATION ARTS	HOURS
Rhet. 105 or 108	4
Advanced writing course*	3
Speech performance course*	3
HUMANITIES	
Electives	6

[1] The concentration in School Health Education will not be offered during 1985-87. See the Department of Health and Safety Studies, 117 Huff Hall, for further information.

MATHEMATICS

College Algebra — Math. 111 (5) or 112 (3). 3-5

NATURAL SCIENCES

Chemistry 4
Functional Human Anatomy 5
Human Genetics 3
Introduction to Human Physiology 4
Microbiology 3

SOCIAL SCIENCES

Introduction to Psychology 3
Introduction to Sociology 3
Statistics 3
To be selected with adviser 3-4

PHYSICAL EDUCATION ACTIVITY COURSES

Electives 4

* To be selected with adviser.

Professional Core Requirements

H.S.S. 100 — Professional Seminar 0
H.S.S. 110 — Introduction to Public Health 3
H.S.S. 150 — Health and Modern Life 3
H.S.S. 181 — First Aid 2
H.S. 283 — Concepts of Disease Prevention (2) or
H.S.S. 374 — General Epidemiology (4) 2-4
H.S.S. 288 — The Secondary School Health Education Program 4
H.S.S. 390 — Public Health Education 3
H.S.S. 280 — Safety Education 3
Total 20-22

Areas of Concentration

An area of concentration will be determined by the sophomore year. The areas of concentration are Community Health Education and Health Planning and Administration.[1] Specific requirements for each option are described in the following sections.

COMMUNITY HEALTH EDUCATION **HOURS**

General education requirements 54-57
Professional core requirements 20-22

H.S.S. 206 — Human Sexuality 2
H.S.S. 289 — Community Health Education Internship 8
H.S.S. 303 — Delivery of Health Care: Problems and Perspectives 3
H.S.S. 391 — Health Data Analysis 3
H.S.S. 393 — Drug Abuse Education 2
F.N. 120 — Contemporary Nutrition 3
Total 21
Correlate Area #1 15
Electives 13-18
Total hours required for graduation 128

HEALTH PLANNING AND ADMINISTRATION **HOURS**

General education requirements 54-57
Professional core requirements 20-22

H.S.S. 290 — Health Planning and Administration Internship 8
H.S.S. 303 — Delivery of Health Care: Problems and Perspectives 3
H.S.S. 391 — Health Data Analysis 3
H.S.S. 397 — Health Planning 2
H.S.S. 398 — Health Administration 3
Total 19
Correlate Area #2 18

[1] The concentration in School Health Education will not be offered during 1985-87. See the Department of Health and Safety Studies, 117 Huff Hall, for further information.

Electives	12-17
Total hours required for graduation	128

Correlate Areas

Each student completes a correlate area that is a planned program of courses taken primarily outside the department, designed to be supportive of the area of concentration. The correlate area may serve as a minor field of study or may prepare the student for advanced study.

CORRELATE AREA #1 (COMMUNITY HEALTH EDUCATION)	HOURS
Select a minimum of 6 hours from the departmentally approved list of courses related to communication	6
Select a minimum of 3 hours from the departmentally approved list of courses related to health care delivery	3
Select a minimum of 3 hours from the departmentally approved list of courses related to organization and leadership	3
Select a minimum of 3 hours from the departmentally approved list of courses related to community problems	3
Total	15

CORRELATE AREA #2 (HEALTH PLANNING AND ADMINISTRATION)	
Select a minimum of 6 hours from the departmentally approved list of courses related to administration and organization	6
Select a minimum of 6 hours from the departmentally approved list of courses related to planning	6
Select a minimum of 3 hours from the departmentally approved list of courses related to accounting and economics	3
Select a minimum of 3 hours from the departmentally approved list of courses related to marketing and communications	3
Total	18

TEACHER EDUCATION MINOR IN HEALTH EDUCATION

This program is designed for students enrolled in a teacher education curriculum other than in the Department of Health and Safety Studies.

	HOURS
H.S.S. 110 — Introduction to Public Health	3
H.S.S. 150 — Health and Modern Life	3
H.S.S. 181 — First Aid	2
H.S.S. 285 — Sex Education for Teachers*	4
H.S.S. 288 — The Secondary School Health Education Program	4
H.S.S. 392 — Health and Safety Education in the Elementary Schools	3
H.S.S. 393 — Drug Abuse Education	2
Electives	2-3
Total	23-24

* Will not be offered during 1985-87 but is available through Guided Individual Studies: H.S.S. 285 — Sex Education for Teachers.

See departmental office for further information regarding availability of courses.

CURRICULUM IN LEISURE STUDIES

The curriculum in leisure studies prepares students to design, manage, and deliver leisure services to a variety of populations through diverse agency settings. A broad general education is emphasized and complemented with a core of professional courses. Students may select from three options:

1. Outdoor recreation planning and management for students desiring to work in national and state park departments,
2. Program management, which prepares students to manage leisure programs in public or private agencies, and
3. Therapeutic recreation for students desiring to design and deliver leisure programs to disabled populations.

All options require 126 credit hours for graduation and the completion of the Professional Laboratory Experience Program.

Professional Laboratory Experience Program

All students in the Department of Leisure Studies must satisfactorily complete the Professional Laboratory Experience Program prior to graduation. The program is designed to augment formal classroom instruction with active experiential learning under the guidance of an agency-based supervisor. The program consists of two courses: Lei. St. 280 — Orientation to Practicum, and Lei. St. 284 — Leisure Studies Practicum.

Students must have achieved senior standing to enroll in the Professional Laboratory Experience Program, have a minimum cumulative grade-point average of 3.0, and be in good standing with the University. Depending on the option selected by the student, other specific course prerequisites may need to be fulfilled prior to being accepted into the Professional Laboratory Experience Program. The college statement on supervised field experience applies to all students participating in the Professional Laboratory Experience Program.

Practicum Related Courses

Students should register for Lei. St. 280 — Orientation to Practicum after achieving junior standing. As a part of this course, students must document that they have completed a minimum of 320 hours of actual field work experience in a leisure service agency in a face-to-face service delivery capacity. During this course, students will make final arrangements for completing Lei. St. 284 — Leisure Studies Practicum.

The practicum may be taken only after the student has achieved senior standing (90 completed semester hours), satisfactorily completed Lei. St. 280, and fulfilled other option prerequisites. The professional field practicum is designed to give the student guided professional experience prior to graduation. Lei. St. 284 can only be taken in agencies which have been approved and contracted for this program. The practicum includes a minimum of 640 clock hours of experience in a nonpaid, internship-type position. No more than 40 hours per week may be applied to this total.

The last day for a student to apply for placement into a practicum for an academic semester is Friday of the third week of the preceding academic semester. Students will be cleared for placement by their academic adviser and must then make application to the coordinator of the Professional Laboratory Experience Program for a practicum assignment.

Students who are on academic or disciplinary probation or who are on dropped status are not eligible for completing a practicum during the semester in which the probationary or dropped status is in effect and are not permitted to engage in practicum activities.

Students should anticipate and plan for off-campus assignments during the semester in which they will be taking their practicum. Only a limited number of assignments for practicums are available in the vicinity of campus. It is not currently possible to arrange local assignments for all whose need would justify such an assignment. For most students, an additional expense will be incurred during the semester in which the practicum is taken.

General Education Requirements

VERBAL COMMUNICATION **HOURS**

Sp. Com. 101 — Principles of Effective Speaking, of Sp. Com. 113 — Group Discussion and Conference Leadership 3

WRITTEN COMMUNICATION

Rhet. 105 — Principles of Composition, or Rhet. 108 — Forms of Communication 4
Rhet. 133 — Principles of Composition, or Rhet. 143 — Intermediate Expository Writing 3

ACCOUNTING OR ECONOMICS OR MATHEMATICS OR STATISTICS 3

Students in the Program Management Option who select Correlate #4 should select Econ. 101.

ACTIVITY COURSES 4

NATURAL SCIENCE 8-9

Students in Therapeutic Recreation Option must select Physl. 103 and Physl. 234

SOCIAL SCIENCE 15

Students in the Therapeutic Recreation Option and Program Management Option must select Psych. 100, 103, or 105 and additional social science electives

HUMANITIES

F.A.A. 250 — Arts and Leisure 3
Humanities electives 8
Total 51-52

Professional Core Requirements

	HOURS
Lei. St. 100 — Introduction to Leisure Studies	3
Lei. St. 110 — Foundations for Delivery of Leisure Service	2
Lei. St. 130 — Introduction to Therapeutic Recreation	2
Lei. St. 210 — Theories and Methods of Supervision	3
Lei. St. 280 — Orientation to Practicum	0
Lei. St. 284 — Leisure Studies Practicum	12
Lei. St. 290 — Research in Leisure Studies	3
Lei. St. 310 — Introduction to Administration	3
Total	28

Areas of Concentration

OUTDOOR RECREATION PLANNING AND MANAGEMENT OPTION

	HOURS
General Education Requirements	51-52
Professional Core Requirements	28
Lei. St. 141 — Introduction to Outdoor Recreation	3
Lei. St. 240 — Operation and Maintenance of Parks	3
Lei. St. 241 — Outdoor Recreation Consortium	2
Lei. St. 340 — Outdoor Recreation Management	3
Lei. St. 341 — Recreational Use of Public Lands	3
Total	14
Correlate Area #1	12
Electives	20-21
Total hours required for graduation	126

PROGRAM MANAGEMENT OPTION

	HOURS
General Education Requirements	51-52
Professional Core Requirements	28
Lei. St. 200 — Leadership in Leisure Delivery Systems	3
Lei. St. 215 — Recreation Program Development	3
Lei. St. 274 — Urban Leisure Systems	3
Lei. St. 315 — Play Theories and Their Implications (2-4)	3
Lei. St. 332 — Program Design and Evaluation in Recreation	3
Total	15
Correlate Area #2 or #4	12
Electives	19-20
Total hours required for graduation	126

THERAPEUTIC RECREATION OPTION

	HOURS
General Education Requirements	52
Professional Core Requirements	28
Lei. St. 230 — Clinical Aspects of Therapeutic Recreation	4
Lei. St. 232 — Principles of Therapeutic Recreation	3
Lei. St. 239 — Seminar in Therapeutic Recreation	3
Lei. St. 331 — Facilitation Techniques and Leisure Education	3
Lei. St. 332 — Program Design and Evaluation in Recreation	3
Select one of the following courses	3
Lei. St. 231 — Leisure and the Aging	
Lei. St. 233 — Recreation for the Physically Disabled	
Lei. St. 234 — Recreation for the Mentally Ill and Emotionally Disturbed	
Lei. St. 235 — Recreation for the Developmentally Disabled	
Total	17
Correlate Area #3	11
Electives	18
Total hours required for graduation	126

Correlate Areas

Correlate areas are planned programs of courses taken outside the department which are designed to support the student's area of concentration.

CORRELATE AREA #1: OUTDOOR RECREATION PLANNING AND MANAGEMENT OPTION

	HOURS
L.A. 226 — Principles of Park Design	2
For. 301 — Forest Recreation	2
Env. St. 283 — Introductory Ecology for Educators, or E.E.E. 105 — The Ecosystem Concept	3
To be selected with adviser	5
Total	12

CORRELATE AREA #2: PROGRAM MANAGEMENT OPTION

H. Ed. 181 — First Aid	2
L.A. 226 — Principles of Park Design	2
For. 301 — Forest Recreation	2
To be selected with adviser	6
Total	12

CORRELATE AREA #3: THERAPEUTIC RECREATION OPTION

H. Ed. 181 — First Aid	2
Sp. Ed. 117 — Exceptional Children	3
P.E. 355 — Kinesiology	3
Psych. 238 — Abnormal Psychology	3
Total	11

CORRELATE AREA #4: PROGRAM MANAGEMENT OPTION

Select any four of the following courses for a total of 12 semester hours:	
Accy. 201 — Fundamentals of Accounting	3
Adv. 281 — Introduction to Advertising	3
B. Adm. 247 — Introduction to Management	3
C.S. 105 — Introduction to Computers and Their Application to Business and Commerce	3
To be selected with adviser	3
Total	12

Minor in Leisure Studies for Non-Leisure Studies Majors

	HOURS
Lei. St. 100 — Introduction to Leisure Studies	3
Lei. St. 110 — Foundations for Delivery of Leisure Services	2
Lei. St. 200 — Leadership in Leisure Delivery Systems	3
Lei. St. 210 — Theories and Methods of Supervision	3
Lei. St. 215 — Recreation Program Development	3
Select any two of the following:	
Lei. St. 130 — Introduction to Therapeutic Recreation	2
Lei. St. 140 — Principles of Camping	3
Lei. St. 141 — Introduction to Outdoor Recreation	3
L.A. 226 — Principles of Park Design	2
Total	18-20

CURRICULUM IN PHYSICAL EDUCATION

This curriculum is designed to (1) provide knowledge and understanding for human movement and sport careers in either public or private agencies, and (2) allow students to develop a program of studies, in consultation with an adviser, that will provide a foundation for graduate study in physical education. The 128 hours required for graduation include prescribed courses for all students as well as requirements determined by the various areas of concentration and electives selected by the student.

The first two years of this curriculum provide a foundation for the various areas of concentration, as well as allowing some variation according to the interests of individual students. The course for the third and fourth year are largely determined by the area of concentration selected.

The Department of Physical Education offers a Coaching Endorsement to all University of Illinois at Urbana-Champaign students, regardless of degree program. Students who desire certification as a teacher or athletic trainer can satisfy the necessary requirements by appropriate

selection of courses within the area of concentration and correlate areas. For teacher certification requirements applicable to all curricula, see pages 87 to 91.

For further information on these and other rapidly growing fields, contact the Undergraduate Academic Adviser, Department of Physical Education, University of Illinois at Urbana-Champaign, 131 Freer Hall, 906 South Goodwin Avenue, Urbana, IL 61801.

General Education Requirements for All Students*

COMMUNICATION ARTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 or 108 and a speech performance elective	6-7
Communication arts elective	6-7
Total	13
HUMANITIES	
Total	9
MATHEMATICS	
Two courses: Math. 111 or above	5-8
NATURAL SCIENCES	
Introduction to Human Physiology	4
Functional Human Anatomy	5
Total	9
SOCIAL SCIENCES	
Total	9
ELECTIVES	
Must be selected from the five areas listed above or foreign languages	9-12
Total	57

* See the undergraduate academic adviser for teacher certification requirements.

Professional Core Requirements for All Students

	HOURS
P.E. 130 — Analysis and Performance of Basic Movement Skills	2
P.E. 131 — Movement Skills: Fitness	1
P.E. 132 — Movement Skills: Swimming	1
P.E. 133 — Movement Skills: Dance	1
P.E. 134 — Movement Skills: Gymnastics	1
P.E. 135 — Movement Skills: Field Activities	1
P.E. 136 — Movement Skills: Racquet Activities	1
P.E. 140 — Social Scientific Bases of Sport	3
P.E. 150 — Bioscientific Foundation of Human Movement	3
P.E. 160 — Physical Education as a Profession	2
P.E. 161 — Principles of Motor Skill Acquisition	3
P.E. 255 — Kinesiology	3
P.E. 280 — Principles of Evaluation and Assessment	3
Total	25

Areas of Concentration

In addition to the professional core requirements for all students, each student will declare in consultation with the academic adviser, an area of concentration within physical education no later than the first semester of the junior year. The areas of concentration are: bioscience, curriculum and instruction, social science of sport, and personalized area of concentration.

BIOSCIENCE

P.E. 285 — Supervised Experiences in Physical Education Research (3) or P.E. 287 — Supervised Experiences in Agency Setting (3)	3
P.E. 352 — Physiology of Physical Activity	3
P.E. 355 — Cinematographical Techniques of Sport Analysis (3) or P.E. 356 — Electromyographic Kinesiology (3)	3
P.E. 354 — Growth and Physical Development of Children	3
Select 6 hours from the departmental approved list of bioscience courses	6
Total	18

CURRICULUM AND INSTRUCTION*

P.E. 262 — Motor Development in Childhood (3) or
P.E. 354 — Growth and Physical Development of Children (3) 3
P.E. 263 — Curriculum Development in Physical Education 3
P.E. 267 — Adapted Physical Education 3
P.E. 273 — Instructional Strategies in Physical Education 3
P.E. 286 — Supervised Experiences in the Common Schools 3
Select 3 hours from the departmental approved list of curriculum and instruction courses 3
Total 18

* Students desiring to be certified to teach in the public schools must select this area of concentration.

SOCIAL SCIENCE OF SPORT **HOURS**

P.E. 244 — Anthropology of Play (3) or
P.E. 247 — Introduction to Sport Psychology (3) 3
P.E. 249 — Sport and Modern Society 3
P.E. 285 — Supervised Experiences in Physical Education Research (3) or
P.E. 287 — Supervised Experiences in Agency Setting (3) 3
P.E. 349 — Sociology of Sport ..... 2 or 4
Select 5 to 7 hours from the departmental approved list of social science of sport courses 3
Total 18

Personalized Area of Concentration (PAC)

The Personalized Area of Concentration provides the student with an opportunity to design and follow an individualized series of courses stressing greater flexibility (depth and breadth) than that available in the Bioscience, Curriculum and Instruction, or Social Science of Sport areas of concentration. PAC will allow students whose academic interests span more than one established area of concentration to design a program of study not presently available through the other areas of concentration.

In accordance with department regulations concerning the development and approval of PACs, the student will develop a series of physical education courses (at least 18 hours of credit) designed to complement a specific educational goal. Interested students should contact the Undergraduate Academic Adviser, Department of Physical Education, 131 Freer Hall, 906 South Goodwin Avenue, Urbana, IL 61801.

Correlate Areas

Each student will complete a correlate area that is a plan of study designed to support the area of concentration. These courses must be taken from outside the Department of Physical Education. The correlate area may serve as a minor field of study, may satisfy teacher education requirements, or may prepare the student for advanced study.

CORRELATE AREA #1

The student will develop, in consultation with the academic adviser, a series of courses (at least 18 semester hours) designed to support the area of concentration. These courses will be approved by a departmental faculty committee charged with this responsibility.

CORRELATE AREA #2 (TEACHER CERTIFICATION K-12)* **HOURS**

E.P.S. 201 — Foundations of American Education 3
Ed. Psy. 236 — Child Development for Elementary Teachers (3)
Ed. Psy. 211 — Educational Psychology (3) 3
El. Ed. 233 — Classroom Programs in Childhood Education (2)
Se. Ed. 240 — Principles of Secondary Education (2) 2
Ed. Pr. 238 — Educational Practice in Special Fields in Elementary School 8
Ed. Pr. 242 — Educational Practice in Secondary Education 8
Total 24

* Students desiring to be certified to teach in the public schools must select this area of concentration.

CORRELATE AREA #3 (TEACHER CERTIFICATION 6-12)* **HOURS**

E.P.S. 201 — Foundations of American Education 3
Ed. Psy. 211 — Educational Psychology (3) 3
Se. Ed. 240 — Principles of Secondary Education 2
Ed. Pr. 238 — Educational Practice for Special Fields in Elementary Schools 8

Ed. Pr. 242 — Educational Practice in Secondary Education 8
Total 24

* Students desiring to be certified to teach in the public schools must select this area of concentration.

Electives 4-10
Grand total 128

TEACHER EDUCATION MINOR IN PHYSICAL EDUCATION

This program is designed for students enrolled in a teacher education curriculum other than in the Department of Physical Education.

REQUIRED COURSES	HOURS
P.E. 130 — Analysis and Performance of Basic Movement Skills	2
P.E. 150 — Bioscientific Foundations of Human Movement	3
P.E. 161 — Principles of Motor Skill Acquisition	3
P.E. 263 — Physical Education Curriculum	3
P.E. 267 — Adapted Physical Education	3
P.E. 273 — Instructional Strategies in Physical Education	3
P.E. 131-136 — Movement skills	
Select at least one course from each of the three areas below to total 5 hours	5
1. Dance and/or rhythmic activities	
2. Individual-dual activities	
3. Team sports	
Total	22

Institute of Aviation

Willard Airport, One Airport Road, Savoy, IL 61874

ADMISSION REQUIREMENTS **141**

CURRICULA **142**

The Institute of Aviation is responsible for the promotion and correlation of education and research activities related to aviation at the University. Its director has the advice and assistance of an executive committee. The institute holds Federal Aviation Administration (FAA) Airman Examining (Pilot) Agency Certificate Number 1, which permits it to issue pilot certificates and ratings to its graduates on behalf of the FAA. A Professional Pilot curriculum includes training from the private pilot to the airline-transport pilot level.

The Aircraft Systems curriculum prepares students for the FAA mechanic certificate with airframe and powerplant ratings. An Avionics curriculum, with the first year at Parkland College and the second at the Institute of Aviation, is also available.

The student who wishes to become a professional pilot may also elect the Professional Pilot/Aircraft Systems curriculum which permits substitution of flight courses for specified maintenance courses in each semester of the Aircraft Systems curriculum, permitting the student to work toward the commercial certificate.

Normally, new freshmen are accepted for admission only in August. However, a few students are accepted for the spring semester. Intra-University transfer to the Institute of Aviation may be accomplished as space permits.

Graduating institute students may transfer to any degree-granting division of the University to complete requirements for a degree in that division. This may require from three to five additional semesters. A non–Institute of Aviation student may elect flight courses with the permission of his or her department.

Special fees ranging from $916 to $1,960 are charged for a course involving flight training in addition to the estimated costs listed in Table 2 on page 50. These fees are subject to change as operating costs rise.

The institute's Aviation Research Laboratory conducts interdisciplinary research in many areas related to flight problems. The institute manages Willard Airport, located six miles southwest of the Urbana-Champaign campus. The airport also provides the University and the community with excellent air transportation facilities.

ADMISSION REQUIREMENTS

Applicants must meet general University requirements as well as those specified by the Institute of Aviation listed in the Admissions Chart on page 11. Additional units in physics, mathematics, and the social sciences are recommended.

Curricula

PROFESSIONAL PILOT CURRICULUM[1]

FIRST YEAR FIRST SEMESTER	HOURS
Avi. 101 — Private Pilot I	3
Econ. 101 — Introduction to Economics	4
Hist. 111 — History of Western Civilization to 1815, or Hist. 151 — History of the United States to 1877	4
Sp. Com. 111 — Verbal Communication	3
Free elective	3
Total	17

SECOND SEMESTER	HOURS
Avi. 120 — Private Pilot II	3
Math 125 — Elementary Linear Algebra with Applications	3
Hist. 112 — History of Western Civilization, 1815 to the Present, or Hist. 152 — History of the United States, 1877 to the Present	4
Sp. Com. 112 — Verbal Communication	3
Free elective	3
Total	16

SECOND YEAR

Avi. 130 — Commercial-Instrument I	3
Math 134 — Calculus for Social Scientists I	4
Humanities elective	3
Free electives	6
Total	16

Avi. 140 — Commercial-Instrument II	3
C.S. 105 — Introduction to Computers and Their Application to Business and Commerce	3
Humanities electives	4
Free electives	6
Total	16

[1] Other elective options are available. Students interested in a B.A. or B.S. degree in addition to their aviation curriculum should explore options combining this curriculum with curricula in Business Administration, Agricultural Economics, Education, Journalism, Psychology, etc. A brochure listing sample programs is available from the Institute of Aviation upon request.
Note the following:
Hist. 111 and 112, or Hist. 151 and 152 should be chosen.
Humanities electives should be chosen to comply with University general education requirements.
Two additional flight courses, Avi. 200 and Avi. 210, are required to complete requirements for the commercial certificate with instrument rating.

AIRCRAFT SYSTEMS CURRICULUM

FIRST YEAR FIRST SEMESTER	HOURS
Avi. 142 — Reciprocating Powerplant Theory	3
Avi. 143 — Aircraft Materials and Processes I	3
Avi. 144 — Turbine Powerplant Theory	3
Avi. 145 — Basic Aircraft Electrical Systems	3
Avi. 154 — Powerplant Systems II	3
Rhet. 105 — Principles of Composition or Rhet. 108 — Forms of Composition of Sp. Com. 111/112 Sequence[1]	4
Total	19

SECOND SEMESTER	HOURS
Avi. 147 — Introduction to Federal Aviation Regulations	3
Avi. 152 — Aircraft Powerplant Electrical Systems	4
Avi. 153 — Aircraft Materials and Processes II	2
Avi. 155 — Aerodynamics and Load Planning	3
Avi. 156 — Powerplant Systems III	3
G.E. 105 — Elements of Drawing	3
Total[3]	18

SECOND YEAR

Avi. 163 — Aircraft Materials and Processes III	3
Avi. 165 — Aircraft Fabricating Processes I	4
Avi. 167 — Aircraft Fabricating Processes II	2
Avi. 169 — Aircraft Systems I	4
Avi. 170 — Aircraft Systems II	5
Total	18

Avi. 157 — Powerplant Conditioning and Testing	7
Avi. 159 — Powerplant Maintenance and Inspection Systems	3
Avi. 172 — Aircraft Systems III	3
Avi. 174 — Aircraft Assembly and Inspection	5
Avi. 179 - Airframe Maintenance and Inspection Systems	3
Total[3]	21

COMBINED PROFESSIONAL PILOT/AIRCRAFT SYSTEMS CURRICULUM[2]

FIRST YEAR FIRST SEMESTER HOURS

Avi. 101 — Private Pilot I 3
Avi. 142 — Reciprocating Powerplant Theory 3
Avi. 143 — Aircraft Materials and Processes I 3
Avi. 144 — Turbine Powerplant Theory 3
Avi. 145 — Basic Aircraft Electrical Systems 3
Rhet. 105 — Principles of Composition or Rhet. 108 — Forms of Composition or Sp. Com. 111/112 Sequence[1] 4
Total 19

SECOND SEMESTER HOURS

Avi. 120 — Private Pilot II 3
Avi. 147 — Introduction to Federal Aviation Regulations 3
Avi. 152 — Aircraft Powerplant Electrical Systems 4
Avi. 153 — Aircraft Materials and Processes II 2
Avi. 155 — Aerodynamics and Load Planning 3
Avi. 156 — Powrplant Systems III 3
Total[3] 18

SECOND YEAR[4]

Avi. 130 — Commercial-Instrument I 3
Avi. 154 — Powerplant Systems II 3
Avi. 163 — Aircraft Materials and Processes III 3
Avi. 165 — Aircraft Fabricating Processes I 4
Avi. 167 — Aircraft Fabricating Processes II 2
Total 15

Avi. 140 — Commercial-Instrument II 3
Avi. 157 — Powerplant Conditioning and Testing 7
Avi. 159 — Powerplant Maintenance and Inspection Systems 3
G.E. 105 — Elements of Drawing 3
Total[3] 16

THIRD YEAR

Avi. 200 — Commercial-Instrument III 5
Avi. 169 — Aircraft Systems I 4
Avi. 170 — Aircraft Systems II 5
Total 14

Avi. 210 — Commercial-Instrument IV 5
Avi. 172 — Aircraft Systems III 3
Avi. 174 — Aircraft Assembly and Inspection . 5
Avi. 179 — Airframe Maintenance and Inspection Systems 3
Total 16

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[1] Select from Rhet. or Sp. Com. sequence based on career/degree objectives.
[2] Students register in curriculum in aircraft systems.
[3] Students who prefer to attend summer sessions are encouraged to obtain college requirements in math, science, and electives, or may obtain additional flight courses at the institute.
[4] Students may qualify to test for FAA Powerplant Mechanic certification at the end of the second year.

Note: Students planning to transfer to a baccalaureate program should work with an adviser to select up to 22 hours of degree-oriented electives while at the institute.

AVIONICS

FIRST YEAR (PARKLAND)

FIRST SEMESTER HOURS

Elt. 150 — Introduction to Electronics 2
Elt. 151 — Network Analysis I 3
Elt. 171 — Basic Electronic Circuits 3
Math. 134 — Technical Mathematics II 3
Eng. 100 — Composition Workshop or Eng. 101 — Composition I 3
Avi. 100 — Introduction to Aviation 3
Total 17

SECOND SEMESTER HOURS

Elt. 173 — Digital Electronics 3
Elt. 175 — Systems Maintenance 4
Elt. 178 — Radio Transmitting Systems 4
Elt. 291 — Electronic Amplifiers and Devices . 5
Eng. 102 — Composition II or Spe. 101 — Introductory Speech Communication . . . 3
Total 19

SECOND YEAR (INSTITUTE OF AVIATION)

Avi. 165 — Aircraft Fabricating Processes 4
Avi. 181 — Aircraft Communication Systems 5
Avi. 182 — Aircraft Navigation Systems 5
Total 14

Avi. 170 — Aircraft Systems II 5
Avi. 183 — Aircraft Pulse Systems 5
Avi. 185 — Aircraft Flight Control Systems . . . 5
Avi. 290 — Advanced Topics in Avionics 4
Total 19

College of Commerce and Business Administration

214 David Kinley Hall, 1407 West Gregory Drive, Urbana, IL 61801

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The purpose of the College of Commerce and Business Administration is to provide educational experience that will help students develop their potentialities for leadership and service in business, in government, and in teaching and research. The undergraduate curricula provide a study of the basic aspects of business and preparation for careers in fields such as accounting, business management, banking, insurance, and marketing. Students should, however expect to serve an apprenticeship in the fields they enter if they aspire to higher positions.

The curricula, leading to the Bachelor of Science degree in one of the various degree programs in business and economics, are based on four years of college work. Students are required to elect courses in other colleges of the University including mathematics, rhetoric, literature, speech, and the social sciences and to secure as liberal an education as possible to avoid the narrowing effects of overspecialization. Through a cooperative arrangement with the College of Liberal Arts and Sciences, students in that college may major in economics or finance.

The College of Commerce and Business Administration offers graduate and professional programs to students with a bachelor's degree in one of the areas of business and economics, or in a nonbusiness area such as liberal arts, science, or engineering. Detailed information on graduate programs may be obtained from the Graduate College.

DEPARTMENTS AND CURRICULA

Undergraduate instruction in the College of Commerce and Business Administration is organized under the Departments of Accountancy, Business Administration, Economics, and Finance. Each of these departments offers courses that provide a field of concentration a student may elect. These curricula lead to Bachelor of Science degrees in one of the various fields of study in the college and are designed to encourage each student to fully develop his or her intellectual capacity. Each curriculum introduces the students to each major subject area in the college and provides them with the opportunity to major in the area of their choice.

ADMISSION REQUIREMENTS

Applicants must meet general University requirements as well as those specified by the College of Commerce and Business Administration listed in the Admissions Chart on page 11.

Students transferring from other colleges will not be excused from the entrance requirements unless they have demonstrated proficiency in the areas in which they are deficient.

Mathematics Placement Test

Students without college credit in algebra are required to take the Mathematics Placement Test before registering in the college. The results of the test are used to place students in Math. 111 or 112 or to exempt them from college algebra and allow them to enroll in Math. 125 or equivalent which is required for graduation.

The student who enters with college credit in algebra may proceed directly to courses beyond college algebra required by the college for graduation.

HONORS PROGRAMS

Honors at Graduation

Honors awarded to superior students at graduation are designated on the diploma as follows: for graduation with Honors, a minimum grade-point average of 4.25 (A = 5.0) in all courses accepted toward the student's degree; for graduation with High Honors, a minimum grade-point average of 4.5 in all courses accepted toward the degree; and for graduation with Highest Honors, a minimum grade-point average of 4.75 in all courses accepted toward the degree.

Edmund J. James Scholars

For information regarding the James Scholar Program, see page 39.

Dean's List

For information regarding the Dean's List, see page 80.

GRADUATION REQUIREMENTS

Students in the College of Commerce and Business Administration who meet the University's requirements with reference to registration, residence, and fees, and who maintain satisfactory scholastic records in the college, are awarded degrees appropriate to their curricula.

Each candidate for a degree must have a 3.0 (A = 5.0) grade-point average or above for all courses counted toward graduation, a 3.0 grade-point average or above for all courses taken at this University, and a 3.0 grade-point average or above for all courses taken in the field of concentration.

Each student may select only one major field of concentration.

Continuing students advance enroll for the following semester in November and April of each academic year. New students may advance enroll during the summer for each fall semester. Information may be obtained from the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 177 Administration Building, Urbana, IL 61801.

Faculty advisers are available during the registration period each semester to help students plan their academic programs.

Students are responsible for meeting the requirements for graduation. Therefore, students should familiarize themselves with the requirements listed in this catalog and should refer to them each time they plan their program.

GENERAL EDUCATION SEQUENCE REQUIREMENTS

Students must complete at least one sequence from each of the following lists. The following regulations apply:

— The behavioral science sequence (list 2) should be started not later than the sophomore year. Business administration majors must select the sequence of Psych. 100 and 201.

— Two or more courses in the general education sequences (lists 1 through 4) must be selected from 200- and 300-level courses.

— Substitution of other courses in the listed sequences must be approved by one of the deans in the Undergraduate Office, College of Commerce and Business Administration, University of Illinois at Urbana-Champaign, 214 David Kinley Hall, Urbana, IL 61801.

— General education sequence courses and the advanced rhetoric course may be taken under the credit–no credit option.

LIST 1: FOREIGN LANGUAGE, HUMANITIES, NATURAL SCIENCE

Art 116, Music 130, 131
Art 111, 112, and Music 113 or 115
Astr. 101, 102 or 140 and 141
Biol. 100 or 101 and 102 or 103
Chem. 107, 108
Chem. 101, 102
Entom. 118, Physl. 103
Foreign language: 8-hour sequence in any language (intermediate or above)
Geog. 102, 103
Geol. 101, 102
Math. 242, or 244 or 245, and any 300-level course (excluding 305, 306, and 307)
Phil.: at least 6 hours
Phycs. 101, 102
Phycs. 106, 107

LIST 2: BEHAVIORAL SCIENCE

Anth. 103, 260
Psych. 100 and a 200- or 300-level course in psychology (Psych. 201 recommended)
Soc. 100 and one 200- or 300-level course in sociology
(Students majoring in business administration must select Psych. 100 and 201.)

LIST 3: HISTORY OR POLITICAL SCIENCE

Political science: any two courses of 3 or more hours each.
History: any two courses of 3 or more hours each

LIST 4: LITERATURE

Six hours of literature

MATHEMATICS REQUIREMENT

Any of the following sequences meet the College of Commerce and Business Administration requirement: Math. 135 (5 semester hours); Math. 120, 132 (8 semester hours); Math. 125, 134 (7 semester hours).

New students at this time need only select which mathematics sequence to enter. Decisions on how far to go in a sequence can be made later as the student gains experience and firms up career objectives.

The most appropriate mathematics sequence for a student depends on his or her background, interest, motivation, and objectives. Background can be evaluated in terms of mathematics courses already completed and the student's score on the Mathematics Placement Test. Interest, motivation, and objectives must be determined by the student. Three basic sequences are open to the student. They are:

— Math. 135. A demanding course requiring a previous analytical geometry course. Should be chosen by students whose interests and objectives require strong mathematics.
— Math. 120, 132. This sequence is appropriate for students whose background is good but who have not had analytical geometry or who feel a somewhat less demanding sequence is preferable.
— Math. 125, 134. This sequence provides the student with a good background, but since the pace is slower it may not sufficiently challenge the very good or previously well-prepared student.

Curricula

Normally, students must register for not less than 12 hours or more than 18 hours in each semester. Students should take mathematics, economics, and accountancy courses in the semesters indicated in the sample schedule of courses. The computer science course must be taken during the first year. A required course that is failed must be repeated the following semester.

A student with less than 30 hours of credit is required to have his program for the semester approved by a faculty adviser.

Up to 4 hours of credit in basic physical education may be counted in the 124 hours necessary for graduation. Physical education grades are counted in the graduation grade-point average.

UNIVERSITY REQUIREMENTS	HOURS
Rhet. 105 or 108 — Composition[1]	4

GENERAL EDUCATION REQUIREMENTS	
Business and technical writing or advanced rhetoric (above Rhet. 108)	3
Sp. Com. 101 — Principles of Effective Speaking	3
General education sequences:	
List 1 — Foreign language, humanities, mathematics, natural science	8
List 2 — Behavioral science	6
List 3 — History or political science	6
List 4 — Literature	6

BUSINESS CORE REQUIREMENTS	
Accy. 201, 202 — Principles of Accounting	6
B. Adm. 200 — Legal Environment of Business	3
B. Adm. 210* — Management and Organizational Behavior	3
B. Adm. 202 — Principles of Marketing	3
B. Adm. 389 — Business Policy	3
C.S. 105 — Introduction to Computers	3
Econ. 101 — Introduction to Economics	4
Econ. 172, 173 — Quantitative Methods	6
Fin. 254 — Business Financial Management	3
Math. 125, 134 — Introductory Analysis for Social Scientists[2]	7

MAJOR	
Courses to yield a total of	18-24

ELECTIVES[3]	
To yield a total of	124

[1] Sp. Com. 111 and 112 may be substituted for Rhet. 105 or 108 and Sp. Com. 101.

[2] Math. 135, or Math. 120 and 132 may be substituted for Math. 125 and 134. (See college mathematics requirement on page 146.)

[3] All general education requirements (except Sp. Com. 101) and all electives may be taken under the credit-no credit option. Business administration majors may not take Psych. 201 under the credit-no credit option.

SAMPLE SCHEDULE OF COURSES

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 101	4	Math. 134	4
Math. 125	3	Sp. Com. 101	3
C.S. 105	3	General education sequence	9
Rhet. 105 or 108	4	Total	16
Total	14		

SECOND YEAR			
Accy. 201	3	Accy. 202	3
Econ. 172	3	Econ. 173	3
Adv. Rhet.	3	General education sequence	6
General education sequence list 1, 3, 4	7	Major or elective	3
Total	16	Total	15

THIRD YEAR			
Fin. 254	3	B. Adm. 200	3
B. Adm. 210*	3	Major and electives	9
B. Adm. 202	3	General education sequence	4
Major or elective	3	Total	16
General education sequence	4		
Total	16		

*NOTE: This course includes limited voluntary participation as a subject in experiments.

FOURTH YEAR

Major and electives	13	Major and electives	13
General education sequence	3	B. Adm. 389	3
Total	16	Total	16

CURRICULUM IN ACCOUNTANCY

For the degree of Bachelor of Science in Accountancy

In economically advanced societies, accounting plays an increasingly important role. As organizations and societies grow in size and complexity, there is a growing need for relevant and reliable quantitative information about their progress and status. This information is an important aid to business managers, investors, and others in (1) planning decisions regarding the use of resources (financial, physical, and human); (2) controlling decisions regarding actions to accomplish the plans; and (3) evaluating decisions regarding the actual peformance. The accountant assists in identifying the information appropriate for a particular decision, participates in the accumulation of this information, and is responsible for reporting and interpreting it. The providing of such information is important to those who manage economic activity as well as to those interested in the results. Accountants perform this function in both business and nonbusiness organizations.

Closely allied to accounting are the fields of information systems, auditing, and taxation. Each field requires additional education. Accountants who specialize in information systems are concerned with the design and control of the system that provides the information. Accountants who specialize in auditing are concerned with verifying the propriety of the information and may attest to its reliability in reports accompanying those issued by management of their accountability for the use of resources. Accountants who specialize in taxation assist in tax planning, return preparation, and the development of regulations. These accountants may be employed internally by an organization, by a governmental unit, or by an independent public accounting firm.

Study in accountancy is offered in seven areas: financial accounting, managerial accounting, international accounting, not-for-profit accounting, taxation, information systems, and auditing. Courses are available in each of these areas at both the undergraduate and graduate levels.

Minimum requirements for the Bachelor of Science degree in Accountancy are: Accy. 211, Accy. 221, Accy. 311, Accy. 331, Econ. 300, and three additional accountancy courses. Accy. 199, up to 4 hours, may count as one course. Additional credit in Accy. 199 will be allowed only with the permission of the department head.

Econ. 300 and accountancy courses may not be taken on a credit–no credit basis. A limit of 33 hours of accountancy courses may be counted toward the Bachelor of Science in Accountancy degree.

CURRICULUM IN BUSINESS ADMINISTRATION

For the degree of Bachelor of Science in Business Administration

The Department of Business Administration offers five separate undergraduate programs: marketing, organizational administration, production, management science, and industrial distribution management. Marketing encompasses those business activities directly related to the process of placing meaningful assortments of goods and services in the hands of the consumer. The marketing student is concerned with the efficient performance of marketing activities and with their effective coordination with the other operations of the firm. Organizational administration is concerned primarily with the effective utilization of human resources within the business organization. Attention is focused on the organization as a social system and the forces that affect this system such as the behavior of individuals and groups, economic conditions, and technology. The study of production is concerned primarily with the efficient utilization of the organization's material resources. Attention is focused on the design and improvement of productive capacity and the coordination of the production process with other system activities.

Management science is concerned with mathematics underlying management decision making. Attention is given to statistics, various optimization techniques, and other forms of mathematical modeling. The Industrial Distribution Management Program stresses the distribution and

logistics function in the industrial sector of the economy with particular reference to the industrial distributor. Problems in the management of industrial distribution businesses, both as suppliers to and customers of manufacturers and other businesses, receive special attention.

Requirements for the degree are: B. Adm. 321 — Industrial Social Systems I, or B. Adm. 322 — Group Processes in the Organization, or B. Adm. 323, Organizational Design and Environment; B. Adm. 274 — Operations Research; B. Adm. 389 — Business Policy; any 200- or 300-level economics course; and one of the following concentrations.

MARKETING

A student must take B. Adm. 320 — Marketing Research, and B. Adm. 344 — consumer behavior, plus one of the following courses:

B. Adm. 212 — Principles of Retailing
Adv. 383 — Advertising Media Strategy and Tactics
B. Adm. 337 — Promotion Management
B. Adm. 352 — Pricing Policies
B. Adm. 360 — Marketing to Business and Government
B. Adm. 370 — International Marketing
B. Adm. 380 — Management Science in Marketing

ORGANIZATIONAL ADMINISTRATION

A student must take four courses from the following list, three of which must be B. Adm. 321, 322, 323, or 351:

B. Adm. 321 — Individual Behavior in Organizations
B. Adm. 322 — Group Processes in the Organization
B. Adm. 323 — Organizational Design and Environment
B. Adm. 351 — Personnel Administration
L.I.R. 345 — Economics of Human Resources
Pol. S. 361 — Introduction to Public Administration
Pol. S. 362 — Administrative Organization and Policy Development
Psych. 355 — Industrial Social Psychology
Psych. 357 — Psychology of Industrial Relations
Soc. 318 — Industry and Society
Soc. 359 — The Social Psychology of Organization

PRODUCTION

A student must take B. Adm. 314 — Production, and B. Adm. 315 — Management in Manufacturing, plus one of the following courses:

Accy. 366 — Managerial Accounting and Quantitative Techniques
B. Adm. 323 — Organizational Design and Environment
B. Adm. 351 — Personnel Administration
Psych. 258 — Human Factors in Man-Machine Systems
Psych. 356 — Human Performance and Engineering Psychology

MANAGEMENT SCIENCE

A student may satisfy this option by taking any three courses approved in advance by the department head. Recommended sequences among the mathematics courses are 315, 357; 315, 383; 361 or 363, 366. Selected courses include:

B. Adm. 373 — Business Information Systems
B. Adm. 380 — Advanced Marketing Management
Accy. 366 — Managerial Accounting and Quantitative Techniques
Math. 315 — Linear Transformations and Matrices
Math. 357 — Mathematical Models in the Social Sciences
Math. 361 — Introduction to Probability Theory I
Math. 363 — Introduction to Mathematical Statistics and Probability I
Math. 364 — Introduction to Mathematical Statistics and Probability II
Math. 366 — Introduction to Probability Theory II
Math. 383 — Linear Programming

INDUSTRIAL DISTRIBUTION MANAGEMENT

A student must take the following courses:

B. Adm. 199 — Industrial Purchasing (to be renumbered as BA 213)
B. Adm. 294 — Practicum in Industrial Distribution Management* (taken during summer of junior year)
B. Adm. 295 — Senior Seminar in Industrial Distribution
B. Adm. 314 — Production
B. Adm. 315 — Management in Manufacturing

B. Adm. 360 — Marketing to Business and Government
G.E. 103 — Engineering Graphics I
Phycs. 140 — Practical Physics

In addition, students must take any two of the following courses:
**Accy. 266 — Cost Accounting
**B. Adm. 320 — Market Research
B. Adm. 345 — Small Business Consulting
**B. Adm. 346 — Entrepreneurship: Small Business Formation
B. Adm. 351 — Personnel Management
**B. Adm. 352 — Pricing Policies
B. Adm. 391 — Introduction to Management Information Systems
B. Adm. 392 — Information Organization for Management Information Systems
B. Adm. 393 — Management Information System Development
**Econ. 384 — Economics of Transportation
**Fin. 281 — Short-Run Financial Management
Fin. 357 — Financing Small Business
**I.E. 335 — Industrial Quality Control
Psych. 245 — Industrial Organizational Psychology
Sp. Com. 211 — Business & Professional Speaking
Sp. Com. 230 — Interpersonal Communication

* Although only one summer practicum is required, it is recommended that students participate in two.
** Strongly recommended.

Students wishing to concentrate in production or management science are advised (not required) to fulfill the college mathematics requirement with Math. 120, 132; Math. 135, 245; or Math. 125, 134, 241 (special section).

Students must select Psych. 100 and 201 from list 2.

B. Adm. 389 should be taken after all requirements in the concentration have been satisfied.

Courses used to fulfill major requirements may not be taken on a credit–no credit basis.

Beyond the required courses for the business core and major, no more than 12 of the 28 elective hours can be selected from business administration, accountancy, or finance.

CURRICULUM IN ECONOMICS

For the degree of Bachelor of Science in Economics

Economics has been described as the study of how people use limited resources to produce various commodities and to distribute them to members of society for their consumption. Accordingly, the economist is concerned with what is produced, how goods and services are distributed, the organization of industries, the labor supply and its use, international trade, the production and distribution of national income and wealth, government finance, and the use and conservation of land and natural resources.

The student majoring in economics establishes a core of knowledge by taking courses in intermediate theory and statistics. The student may then specialize by selecting course work in areas such as taxation and government finance, international economics, economic history, labor economics, economic development, urban and regional economics, quantitative economics, government and economics activity, or transportation economics.

An economics major is well prepared for a broad range of professional careers. Economics provides excellent training for further study in an M.B.A., or law program, or graduate work in areas such as economics, planning and administration, or policy studies. Career opportunities include management positions in business, industry, and government; teaching or administrative positions in colleges or universities; and research positions in private or public institutions.

Requirements for the degree include Economics 300-301 and 12 additional hours in economics. Students with strong math backgrounds or interest in further work in economics are advised (but not required) to fulfill the college mathematics requirement with Math. 120-132 or Math. 135 and to take additional training in courses such as Math. 242 or 245 and 315.

CURRICULUM IN FINANCE

For the degree of Bachelor of Science in Finance

The field of finance is primarily concerned with the acquisition of capital funds for business, public, or personal use. A new business, for example, must secure sufficient funds to initiate

and maintain operations until the cash flow from sales is great enough to maintain capital requirements. Established businesses seek financial advice when considering the purchase of new equipment, the selection of a new plant location, or the expansion of present facilities. Business policy decisions which result in changes in the capital structure of the business are of special importance to finance.

A student who majors in finance may specialize in finance, investment, and banking; insurance and risk management; or real estate and urban land economics.

As the study of finance is designed to provide the student with both the theoretical background and the analytical tools required to make effective judgments in finance, many students select careers in business financial management, commercial or investment banking, government finance, insurance, or real estate.

One of the following concentrations is required for the degree.

BUSINESS FINANCE, INVESTMENTS, AND FINANCIAL INSTITUTIONS AND MARKETS AREA

Econ. 300 or 301
Four of Fin. 235, 237, 238, 252, 258, 280, 281, 354, 357
One of: Accy. 211, 221; Bus. Adm. 274, 320, 337; Econ. 255, 328, 372

INSURANCE AND RISK MANAGEMENT AREA

Fin. 260
Four of Fin. 262, 360, 363, 370, 371
One of: Accy. 251; Econ. 301, 315; Fin. 294, 295; Math. 371, 372

REAL ESTATE AND URBAN ECONOMICS AREA

Fin. 264
Four of: Fin. 365, 366, 367, 368, 369
One of: Accy. 251; Agr. Econ. 312, 318; Arch. 379; C.E. 318; Econ. 300, 360; Fin. 371;[1] Geog. 366, 383; U.P. 315.[2] (Other courses in urban and regional planning may be used with the consent of the student's adviser and the Department of Urban and Regional Planning.)

[1] Fin. 367 and 371 should be taken if the student is planning to use the real estate major as a basis for taking the real estate brokerage examinations for a state license. Fin. 264 will satisfy the requirements for the salesman's license examination.

[2] Other courses in urban planning are available with the consent of the student's adviser and the Department of Urban and Regional Planning.

TEACHER EDUCATION MINOR IN ACCOUNTANCY FOR NONCOMMERCE MAJORS

REQUIRED COURSES	HOURS
Accy. 201 — Principles of Accounting I	3
Accy. 202 — Principles of Accounting II	3
Accy. 211 — Intermediate Accounting	3
C.S. 105 or 106 — Computer Science	3
Vo. Tec. 271 — Techniques and Curriculum Development for Teaching Data Processing and Office Machines	3
Electives in accounting, business administration or computer science*	9
Total	24

* All electives must be approved by an adviser in the Division of Business Education.

TEACHER EDUCATION MINOR IN ECONOMICS EDUCATION FOR NONCOMMERCE MAJORS

REQUIRED COURSES	HOURS
Econ. 101 — Introduction to Economics	4
Econ. 313 — Economics of Consumption, or F.A.C.E. 271 — Home Management	2-3
Fin. 150 — Money, Credit, and Banking, or Fin. 257 — Corporation Finance, or Fin. 260 — Economics of Insurance	3
Electives	11
Total	20-21

ELECTIVES

Econ. 214 — Government Finance and Taxation . . . 3
Econ. 240 — Labor Problems . . . 3

Econ. 255 — Comparative Economic Systems 3
Fin. 150 — Money, Credit, and Banking 3
Fin. 231 — Investment Principles 3
Fin. 257 — Corporation Finance 3
Fin. 260 — Economics of Insurance 3
F.A.C.E. 271 — Home Management 2

College of Communications

119 Gregory Hall, 810 South Wright Street, Urbana, IL 61801

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For students with two years of college and a commitment to a career in communications, the College of Communications offers an additional two years of education leading to the degrees of Bachelor of Science in Advertising, in Journalism, and in Media Studies.

Through its educational programs, the college aims at giving students in advertising and journalism professional competence in their chosen fields of communications. At the same time, it seeks to help them acquire a solid background in the social sciences and humanities. Its premise is that students need an understanding of people and the world they live in if they are to communicate effectively through print and broadcast media.

Through its media studies program, the college aims at giving students the opportunity to study, analyze, and critique modern communications media, again based on a firm foundation in the social sciences and humanities.

The college has modern equipment and facilities for teaching future communications workers — newsrooms, a photographic darkroom, a typography laboratory, an advertising layout laboratory, an audio laboratory, and a video laboratory. Students also use the facilities of the community CATV studio for laboratory instruction. The Communications Library is generally recognized as one of the best in the nation. The college maintains a job placement service for its graduates.

The college is also the supervising administrative unit for the University Broadcasting Division and the Institute of Communications Research.

Instruction in journalism at the University was begun in 1902 as part of the courses in rhetoric and was organized as a division of the Department of English in 1916. The School of Journalism was established in 1927 as a separate unit. In 1950, it became the School of Journalism and Communications with divisions of journalism, advertising, and radio, the last of which later added instruction in television. In 1957, the school was elevated to college status. Two years later the college's three divisions were redesignated departments. The present name — College of Communications — was adopted in 1968.

DEPARTMENTS AND CURRICULA

Through its two academic departments, the college offers professional education in three sequences which have been accredited by the American Council on Education for Journalism — advertising, news-editorial, and broadcast journalism.

The Department of Advertising supervises work in the advertising curriculum for students

expecting to enter advertising agencies or the advertising departments of communications media, industrial organizations, or retail stores. The department aims to educate analytical, flexible, and creative professionals who are able to deal with current and future advertising problems.

The Department of Journalism seeks to prepare students for varied and long-term careers in print and electronic journalism. The primary professional aim of the news-editorial sequence is to train public affairs reporters by providing them with the skills, knowledge, and understanding required of successful journalists. The broadcast journalism sequence aims to prepare broadly educated professionals who will eventually assume decision-making and leadership roles.

The media studies curriculum, a nonprofessional program supervised by the dean of the college, is designed to give students concentrated formal academic study in the development of the communications media and their underlying technologies.

The Departments of Advertising and Journalism offer graduate programs leading to the degrees of Master of Science in Advertising and in Journalism. The college offers an interdisciplinary program leading to the Doctor of Philosophy in Communications under the direction of the Institute of Communications Research.

ADMISSION REQUIREMENTS

For admission to the College of Communications, a student must complete 60 semester hours of acceptable undergraduate college work and present a grade-point average of at least 4.0 (A = 5.0) and evidence of interest in a professional career in communications. The competitive G.P.A. in recent years has been higher. Applicants with less than a 4.0 may be considered if they demonstrate strong career motivation and aptitude, provided spaces are available.

Since they must have junior standing to be eligible to enter the College of Communications, students at the University of Illinois at Urbana-Champaign are advised to register as freshmen and sophomores in the prejournalism curriculum of the College of Liberal Arts and Sciences and to follow a broad general-education program. Students at other institutions should follow similar programs.

Although there is no formal preadvertising or prejournalism program, a recommended program for each college curriculum for the first two years is available in the college office. These programs include basic courses in economics, English, history, philosophy, sociology, and anthropology, as well as courses satisfying the University's general education requirements. Students who do not have a reasonable degree of typing ability must acquire this skill before entering the college as it is required in all curricula. A basic course in computer science also would be useful.

Students at the University of Illinois at Urbana-Champaign should make arrangements at the college office to apply for transfer into the college before the advance enrollment period in the semester in which they will earn junior standing. Junior standing is necessary for students to take most courses offered by the College of Communications.

Students completing their freshman and sophomore studies at institutions other than the University of Illinois are strongly advised to defer courses in advertising, journalism, and communications until enrolled in the College of Communications. Students must take all of their required communications courses in the College of Communications. They may be permitted to transfer up to 9 hours of elective communications courses taken elsewhere, provided they take an equivalent number of additional hours in advanced social studies, arts, and sciences beyond the 20 semester hours required for graduation from the college.

The college does not recommend that students with more than 90 hours enter any of its undergraduate programs. The programs are set up on a four-semester basis. In certain cases it is possible to complete the requirements of its curricula in three semesters if prerequisites in sequential courses can be met. The college does not accept students who have already received a bachelor's degree as candidates for a second bachelor's degree. Instead, it recommends that such students enter one of its graduate programs.

HONORS PROGRAMS

Edmund J. James Scholars

The College of Communications does not have a college honors program. However, students who transfer into the College of Communications from another college on the Urbana-

Champaign campus and are James Scholars in their previous colleges at the time of transfer will continue to be listed as James Scholars in the College of Communications through the end of their first spring semester in the college. If they have a cumulative average of 4.5 (A = 5.0) at that time, they will be certified as James Scholars for the academic year and continued as James Scholars through the next academic year when their records will be reviewed for certification. Any student whose cumulative average falls below 4.5 will not be certified and will be removed from the James Scholars listing. Designation as James Scholars is available only to those students who were previously so designated.

Dean's List

To be eligible for Dean's List recognition, students must rank in the top 20 percent of their respective classes and must successfully complete 14 academic hours of which at least 12 hours must be traditionally graded hours (excluding course work graded pass-fail, credit–no credit, satisfactory/unsatisfactory, excused, or deferred) and excluding grades and hours in basic physical education courses and religious foundation courses.

Honors at Graduation

For graduation with Honors, a student must have been named to the Dean's List of the College of Communications for at least three semesters while enrolled in the College of Communications, must rank in the upper 20 percent of the student's graduation class, and must have earned a minimum grade-point average of 4.50 in all courses taken after admission to the College of Communications. For graduation with High Honors, a student must have been named to the Dean's List of the College of Communications for at least three semesters, must rank in the upper 10 percent of the student's graduation class, and must have earned a minimum grade-point average of 4.70 in all courses taken after admission to the College of Communications. For graduation with Highest Honors, a student must have been named to the Dean's List of the College of Communications for at least three semesters, must rank in the upper 5 percent of the student's graduation class, and must have earned a minimum grade-point average of 4.80 in all courses taken after admission to the College of Communications.

Kappa Tau Alpha

Each year, scholastically high-ranking undergraduate and graduate students in the College of Communications are considered for membership in Kappa Tau Alpha, national honorary society in journalism. The society was founded to recognize and promote scholarship in advertising, journalism, and broadcasting.

GRADUATION REQUIREMENTS

The college offers programs of study leading to the degree of Bachelor of Science in Advertising, Journalism, or Media Studies. To meet the degree requirements, all students must satisfy general University requirements as to registration, residence, scholarship, and fees. They must complete the rhetoric requirement and approved sequences in the humanities, social sciences, and natural sciences as listed under University General Education Requirements on page 156. All students must also fulfill the following general requirements of the College of Communications:

— Complete a total of 124 semester hours of course credit. Basic physical education activity courses and basic courses in military, naval, or air force science may not be counted toward this total although such credits may be counted toward meeting the admission requirement of 60 semester hours. No more than a total of 12 hours earned in undergraduate open seminars (199 courses), in independent study courses outside the college, and in other experimental courses may be counted toward the degrees offered by the college. Students in the college may enroll in one such course for a maximum of 4 hours credit in any semester with the consent of the head of the student's major department. The same policy is applied to credit for internships in fields other than communications with the additional requirement that such courses must also be approved by the dean of the college. While the college encourages its students to hold internships in the communications field, particularly in the summer between the junior and senior years, it does not allow academic credit

toward the degree for such experience alone. Credit granted by other institutions for internships is not accepted.

— Complete not less than 30 hours but not more than 36 hours in courses offered by the college in advertising, communications, and journalism. Undergraduate courses cross-listed with advertising or journalism courses are considered college course offerings. Undergraduate communications courses cross-listed only with departments outside the college are not counted as college offerings except Comm. 322.

— Complete not less than 20 hours in advanced (200- and 300-level) courses at the University of Illinois at Urbana-Champaign in the social studies, arts, and sciences approved by the faculty. The human resources and family studies minor may be substituted for the requirement of 20 hours in advanced social studies, arts, and sciences by advertising and journalism majors.

— Complete the specific requirements of one of the curricula offered by the college as listed below.

— Earn a grade-point average of 3.0 (A = 5.0) in all courses presented for the degree. In addition, students must earn a 3.0 cumulative grade-point average for all courses taken while registered in the college.

UNIVERSITY GENERAL EDUCATION REQUIREMENTS

To be graduated from the College of Communications, students must satisfy the University General Education Requirements which include completion of the rhetoric requirement and a minimum of 6 hours each in the humanities, social sciences, and natural sciences. The sequences and courses below have been approved by the college. A student may not use sequences from any one department to satisfy the requirement in more than one of these areas.

Any substitution of sequences or courses must be approved by the dean of the college. However, any sequence or combination of courses approved to fulfill these requirements by another college at the Urbana-Champaign campus will be accepted by the College of Communications with the exceptions stated below.

The college will waive the requirements in any of the following three areas if the student's performance in the College Level Examination Program earned such a waiver in the student's previous college. However, only CLEP hours earned in the social sciences and humanities, up to a maximum of 12 hours, will be allowed toward the graduation requirement of 124 hours. CLEP credit hours earned in the natural sciences (including mathematics) and rhetoric will not be allowed.

Humanities

Any of the following sequences or combinations from the same department:

Art Hi. 101, 110, 111, 112, 115, 116; Cl. Civ. 120, 131, 132; C. Lit. 141, 142; Engl. 101, 102, 103, 104, 106, 115, 116, 118, 120, 198; Hist. 131, 132, 181, 182; Human. 141, 142; Music 130, 131, 133; Phil. 101, 102, 105, 110.

Social Sciences

Any of the following sequences or combinations from the same department:

Anth. 102, 103; Econ. 101, 236, 240, 245, 255; Geog. 101, 104, 105; Hist. 111, 112, 151, 152; Pol. S. 100, 150; Psych. 100, 201, 216, 238, 245, 250; Soc. 100, 131.

Natural Sciences

To satisfy this requirement, students must select at least 6 hours of courses from either the life sciences, physical sciences, or mathematics. Combinations of life science courses with physical science or mathematics are not accepted. Any of the following sequences in the life sciences:

Biol. 100 or 101 and 102 or 103, or a combination of six hours from the following list: Anth. 143, Biol. 100 or 101; Pl. Bio. 100, 102; E.E.E. 105; Entom. 118; G. & D. 106, 107; Mcbio. 113; Physl. 103; Psych. 103, 217, 230; or any of the following sequences in the physical sciences: Astr. 101, 102, 140, 141; Geog. 102, 103; Geol. 101, 102, 142, 143; or any 6 hours of chemistry, except Chem. 100, or physics; or any 6 hours in mathematics, exclusive of Math. 101, 104, 111, 112, 114, 116, and 161.

Statistics courses and computer science courses may not be used to satisfy the natural science

requirement. It is recommended that students in the advertising curriculum use mathematics to satisfy the natural science requirement; those in the journalism and media studies curricula use either life or physical sciences to satisfy this requirement.

Curricula

CURRICULUM IN ADVERTISING

For the degree of Bachelor of Science in Advertising

To be graduated from the advertising curriculum, a student must meet the general University and college requirements for the degree listed on pages 153 and 154 and must complete the following courses:

	HOURS
Adv. 281 — Introduction to Advertising	3
Adv. 381 — Advertising Research Methods	3
Adv. 382 — Advertising Creative Strategy and Tactics	3
Adv. 383 — Advertising Media Strategy and Tactics	3
Adv. 391 — Advertising Management: Planning	3
Adv. 392 — Advertising Management: Strategy and Tactics	3
Adv. 393 — Advertising in Contemporary Society	3
Journ. 217 — History of Communications; Journ. 218 — Communications and Public Opinion; Journ. 220 — Communications and Popular Culture; Journ. 231 — Mass Communications in a Democratic Society; Journ. 241 — Law and Communications; or Journ. 251 — Social Aspects of Mass Communications (a minimum of two courses from this list)	6
Advertising or journalism electives	3
Total	30
A specified course or courses in statistical methods[1]	3-6
Econ. 101 — Introduction to Economics	4
B. Adm. 202 — Principles of Marketing[2]	3
Psych. 100 — Introduction to Psychology, Soc. 100 — Introduction to Sociology, or Anth. 103 — Introduction to Cultural Anthropology (any two of these three courses)	6-7
Math. 111 or 112, or equivalent	3-5

[1] Currently acceptable courses: Ed. Psych. 390[2]; Econ. 171; Econ. 172 & 173; and Psych. 235.[2]
[2] These courses may be credited toward the college requirement of 20 hours of advanced social studies, arts, and sciences.

CURRICULUM IN JOURNALISM

For the degree of Bachelor of Science in Journalism

News-Editorial Sequence

To be graduated from the news-editorial sequence of the Department of Journalism, a student must meet the general University and college requirements for the degree listed on pages 153 and 154 and must complete the following courses:

	HOURS
Journ. 350 — Reporting I	4
Journ. 360 — Graphic Arts	4
Journ. 370 — News Editing	4
Journ. 380 — Reporting II	4
Journ. 241 — Law and Communications	3
Journ. 217 — History of Communications; Journ. 218 — Communications and Public Opinion; Journ. 220 — Communications and Popular Culture; Journ. 231 — Mass Communications in a Democratic Society; or Journ. 251 — Social Aspects of Mass Communications (a minimum of one course from this list)	3
Advertising or journalism electives	8
Total	30
At least 6 hours of credit in each of the following areas: economics, English or American literature, history, philosophy, political science, and sociology or anthropology[1]	36

[1] Courses taken in these fields to fulfill the college requirement of 20 hours of advanced social studies, arts, and sciences may be used toward fulfilling these departmental requirements as may lower division courses or sequences in these fields taken anytime during the student's four years. Undergraduate seminar courses (199) and hours earned through CLEP may not be used to fulfill these departmental requirements.

Broadcast Journalism Sequence

To be graduated from the broadcast journalism sequence of the Department of Journalism, a student must meet the general University and college requirements for a degree listed on pages 153 and 154 and must complete the following courses:

	HOURS
Journ. 350 — Reporting I	4
Journ. 362 — Broadcast News Production	4
Journ. 372 — Broadcast News Writing and Gathering	4
Journ. 382 — Broadcast News Editing	4
Journ. 241 — Law and Communications	3
Journ. 217 — History of Communications; Journ. 218 — Communications and Public Opinion; Journ. 220 — Communications and Popular Culture; Journ. 231 — Mass Communications in a Democratic Society; Journ. 251 — Social Aspects of Mass Communications (a minimum of one course from this list)	3
Advertising or journalism electives	8
Total	30
At least 6 hours of credit in each of six of the following areas: economics, English or American literature, history, natural science, philosophy, political science, and sociology or anthropology[1]	36
At least four courses in each of two department-approved areas of specialization[1]	12-14

[1] Courses taken in these areas to fulfill the college requirement of 20 hours of advanced social studies, arts, and sciences may be used toward fulfilling these departmental requirements as may lower division course or sequences in these areas taken any time during the student's four years. Natural science may be either life science or physical science, but not mathematics, to satisfy this departmental requirement. Besides the above areas, specializations may include, for example, agricultural economics, labor relations, urban planning, finance, and rural sociology. Undergraduate seminar courses (199) and hours earned through CLEP may not be used to fulfill these departmental requirements.

CURRICULUM IN MEDIA STUDIES

For the degree of Bachelor of Science in Media Studies

To be graduated from the media studies curriculum, a student must meet the general University and college requirements for the degree listed on page 154 and must complete the following courses:

	HOURS
Comm. 101 — Social and Cultural Foundations of Mass Media[1]	(3)
Comm. 217 — History of Communications	3
Comm. 231 — Mass Communications in a Democratic Society	3
Comm. 251 — Social Aspects of Mass Communications	3
Comm. 261 — American Broadcasting and Telecommunications	3
Comm. 264 — Economics of Communications	3
Comm. 362 — Telecommunications Management	3
College of Communications electives from list below	12
At least four elective courses totaling at least 12 hours up to a maximum of six courses totaling no more than 18 hours must be chosen from the following list: Adv. 281 — Introduction to Advertising; Comm. 218 — Communications and Public Opinion; Comm. 220 — Communications and Popular Culture; Comm. 241 — Law and Communications; Comm. 310 — Media Ethics; Comm. 322 — Politics and the Media; Comm. 366 — Film as Business; Journ. 223 — Photojournalism; Journ. 350 — Reporting I; Comm. 361 — Telecommunications Programming; Comm. 368 — Legal and Policy Issues in Telecommunications.	
Total	30
C.S. 106 — Introduction to Computers for the Nontechnical Major	3
At least 20 hours of advanced (200- and 300-level) credits in one or two areas outside of the College of Communications, such as economics, management, political science, sociology, psychology, literature, philosophy, physics, or engineering[2]	20

[1] Required but does not count toward the 30-36 hours for the major.
[2] Fulfills the college requirement of 20 hours of advanced level social studies, arts, and sciences.

MINORS

Students in the College of Communications are not required to complete a minor. Students in advertising or journalism with special interests in home economics may elect to follow a special minor as listed below. The home economics minor may be substituted for the college requirement of 20 hours of advanced social studies, arts, and sciences.

For students not enrolled in the College of Communications, the college offers only one approved special minor, a minor in the teaching of journalism for students in teacher education. Other students are cautioned against attempting to follow a minor or cognate in communications even if approved by their major departments. Enrollment in many courses offered by the college is restricted to majors in one of the college's curricula. In all college courses, enrollment priority is given to students enrolled in the College of Communications.

Minor in Human Resources and Family Studies

For a minor in human resources and family studies (home economics), the student must complete a minimum of 20 hours in courses offered by the School of Human Resources and Family Studies. The 20 hours completed in this area may be substituted for the 20 hours of advanced social studies, arts, and sciences required by the college for graduation. However, all students in the news-editorial and broadcast journalism sequences must satisfy the departmental requirements of at least 6 hours each in history, political science, philosophy, economics, sociology or anthropology, and English or American literature. These courses may be taken at the lower- or upper-division level.

It is recommended that students select a concentration of courses from one of five H.R.F.S. areas (Family and Consumer Economics, Foods and Nutrition, Human Development and Family Ecology, Interior Design, or Textiles and Apparel) and select electives in other areas to total 20 hours.

TEACHER EDUCATION MINOR IN JOURNALISM

This minor is specifically for students in teacher education programs. It requires a minimum of 18 hours in communications courses. In addition to three required courses with a total of 11 hours of credit, a minimum of 7 additional hours must be chosen from a selected group of electives. Students are also required to take at least 7 hours of rhetoric, for a total of 25 hours.

REQUIRED COURSES	HOURS
Typography	3
Newswriting	4
News editing	4
Electives in advertising, journalism, and communications	7
Rhet. 105 or 108	4
One of the following: Engl. 381, Rhet. 133, or Rhet. 143	3
Total	25

ELECTIVES

Introduction to advertising	3
Advanced reporting	4
Photojournalism	3
Magazine article writing	3
American broadcasting and telecommunications	3

Others may be chosen in consultation with the adviser.

College of Education

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CURRICULA **162**

The College of Education of the University of Illinois at Urbana-Champaign offers undergraduate degree programs in four of the seven departments within the college. The departments which offer undergraduate degree programs, and the programs offered by each, are given below.

The Department of Vocational and Technical Education offers degree programs in industrial education and business education. Students interested in industrial education are typically encouraged to obtain academic and technical preparation in their area of specialization prior to admission. The department also has a program for the training of teachers in nonschool settings. Students who elect this option are not eligible for State of Illinois certification by entitlement.

The Department of Secondary Education offers degree programs in the following teaching specialties: English, mathematics, social studies, general science, physical sciences, and life sciences. Only students who have earned at least 60 semester hours are considered for admission to secondary education curricula in the College of Education.

The Department of Special Education offers an undergraduate degree program preparatory to the teaching of moderately and severely handicapped persons. This program is able to accommodate only a small number of juniors and seniors. Applicants to this program must complete special admissions procedures.

The Department of Elementary and Early Childhood Education offers degree programs in elementary education and early childhood education.

In addition to these degree programs, Education General is a two-year curriculum in the College of Education available to students who have completed fewer than 60 semester hours. It is designed to accommodate students who are uncertain about the specific degree program they wish to pursue in the College of Education and students who have not completed the 60 hours required to qualify for admission to curricula in the college for which junior standing is an admission requirement.

In addition to offering undergraduate degree programs in education, the College of Education, under the auspices of the Council on Teacher Education, cooperates with four other colleges on the Urbana-Champaign campus to provide courses in professional education to undergraduate students who are preparing for careers in teaching and special educational services.

The College of Education also offers graduate degree programs. Detailed

information concerning graduate programs in education may be obtained in 120 Education Building.

ADMISSION REQUIREMENTS

The curricula in technical education specialties, education general, early childhood education, and elementary education admit beginning freshmen. (Admission requirements for these programs are given on the Admissions Chart on page 12.) Junior standing, at least 60 semester hours of baccalaureate-oriented course work attained at an accredited institution of higher learning, is required for admission to the programs in business education, special education, and secondary education.

A minimum cumulative grade-point average of 3.5 (A = 5.0) is required to be considered for admission to the College of Education in good standing. A student whose cumulative average is below 3.5 may be considered individually, on a petition basis, if enrollment vacancies exist in the curriculum to which admission is being sought.

HONORS PROGRAMS

Honors at Graduation

Eligibility for graduation with honors is established on the fulfillment of residence and scholastic requirements. Residence requirements for graduation with honors are fulfilled under any of the following conditions:

— Meeting University residence requirements for graduation. Furthermore, at least 54 of the final 60 semester hours of credit must have been earned in residence at Urbana-Champaign. Credit for courses which is not included in the grade-point average does not count toward residency.

— Obtaining waiver of University residence requirements by petition to the undergraduate office, 120 Education Building, and earning at least 54 of the last 60 semester hours of credit, excluding credit for courses which are not included in computation of the grade-point average, through resident study at Urbana-Champaign.

— Meeting University residence requirements and having completed all but 15 hours in resident study at Urbana-Champaign.

— Having completed the first 90 semester hours in residence and all or part of the senior year in an approved program at another institution for a University of Illinois degree.

A student who achieves the required scholastic average in all education courses and in all work presented for graduation (excluding credit for courses not included in the computation of the grade-point average), with education and graduation averages computed separately, may be recommended for honors as follows: Honors, minimum education and graduation scholastic grade-point averages of 4.50 (A = 5.0); High Honors, minimum education and graduation scholastic grade-point averages of 4.75; Highest Honors, minimum education and graduation scholastic grade-point averages of 4.75 and rank within the top 5 percent of those education students graduating within the period.

Edmund J. James Scholars

For information concerning the James Scholar Program, see page 39.

GRADUATION REQUIREMENTS

Each undergraduate student in the College of Education must meet the University requirements (pages 74 to 80) and the requirements of the Council on Teacher Education (pages 87 to 91) for graduation. Students in all curricula must meet the course and academic credit requirements of their curricula with satisfactory scholastic averages. Educational practice (student teaching), which is required of all undergraduates in teacher education, must be completed at the University of Illinois at Urbana-Champaign.

Students in need of additional information concerning regulations and requirements of the College of Education should consult their academic advisers or the office of the Assistant Dean for Admissions and Records, University of Illinois at Urbana-Champaign, 120 Education Building, 1310 South Sixth Street, Champaign, IL 61820.

For additional requirements pertaining to certification, please refer to the section on the Council on Teacher Education, pages 87 to 91.

GENERAL EDUCATION REQUIREMENTS

In order to meet the University requirements in general education, each candidate for a degree in the College of Education must complete at least 6 semester hours of credit in each of three areas — humanities, sciences, and social sciences. In certain curricula, additional credit in these areas are required. These requirements are generally fulfilled by course work offered by the College of Liberal Arts and Sciences.

HUMANITIES

The humanities are concerned with the appreciation of the life of humans: their ideas and values expressed in literature and languages, art forms (dance, music, and painting), a past record of those ideas reflected by experiences and events (history), and an organization and ordering of thought and knowledge (philosophy).

SCIENCES

The sciences are concerned with the observation, identification, description, experimental investigation, and theoretical explanation of phenomena that deal with matter, energy, and their interrelations. Disciplines may include, but are not limited to, biology, chemistry, ecology, mathematics, physics, and physiology.

SOCIAL SCIENCES

The social sciences are concerned with the orderly investigation of individual and group behavior. Disciplines may include, but are not limited to, anthropology, economics, history, political science, and sociology.

Curricula

EDUCATION GENERAL

Education General is a two-year curriculum available to students in the College of Education who have completed fewer than 60 semester hours. It has been designed to accommodate students who are uncertain about the specific degree program they wish to enter in the College of Education and students who have not completed the 60 hours required to qualify for admission to curricula in the college for which junior standing is an admission requirement, e.g., secondary education, special education. Students in Education General are required to pursue a program of study which includes the course requirements common to all undergraduate programs in the College of Education and the requirements for continuation established by the University and the College of Education. Students must transfer out of Education General during the term in which they will complete their sixtieth semester hour in order to obtain a bachelor's degree.

Recommended Program

FIRST SEMESTER	HOURS
Rhet. 105 or 108 or Sp. Com. 111	3-4
Psych. 100	4
Educ. 111[1]	1
Science elective	3
Hist. 151 or 152	4
Total	15-16

SECOND SEMESTER	HOURS
Speech performance elective or Sp. Com. 112	3
Educ. 112[1]	1
Basic physical education activity[2]	1
Science elective	3
Pol. S. 150	3
Electives	4
Total	15

THIRD SEMESTER	HOURS
Humanities elective	3
E.P.S. 201	3
Basic physical education activity[2]	1
Educ. 113[1]	2
Electives	6
Total	15

FOURTH SEMESTER	HOURS
Humanities elective	3
Ed. Psy. 236 or 211	3
Educ. 114[1]	1
Electives	8
Total	15

[1] These education courses are required for students in the Education General program.
[2] Students may substitute a health course for all or part of the 3-hour requirement in basic physical education activities.

CURRICULUM PREPARATORY TO HIGH SCHOOL TEACHING

For the degree of Bachelor of Science in Secondary Education

The following requirements in general education are common to all secondary education specialties. For requirements in addition to those below, refer to pages 87 to 91 for teacher education requirements applicable to all curricula.

It is essential that students consult appropriate teacher education advisers in the selection of specific courses and in the overall planning of degree programs.

A minimum of 120 hours of credit, excluding basic military, is required for graduation.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective	6-7
Humanities[1]	6
Natural sciences[1]	6
History of the United States (Hist. 151, 152, 260, 261, 262)	3-4
American government (Pol. S. 150)	3
General psychology	3
Health and/or basic physical education activities	3
Total	30-32

[1] Courses in the humanities and natural sciences may be selected from the disciplines listed on page 160. If the teaching major or minor area of specialization includes courses in these subjects, they also may be applied toward general education requirements. The social science requirement is fulfilled by the courses in U.S. history and American government.

Specialty in English

PROFESSIONAL EDUCATION REQUIREMENTS	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Fundamentals of Reading Techniques (Se. Ed. 336)	3
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Exceptional Students in Secondary Schools (Sp. Ed. 218)	1
Total	29-32

REQUIREMENTS FOR BOTH OPTIONS	
Literature for the high school or library materials for young adults (Engl. 385 or Lib. S. 304)	3
Oral interpretation (Sp. Com. 141)	3

OPTION A: TEACHER EDUCATION MAJOR IN ENGLISH	
Introduction to Shakespeare (Engl. 118, 318, 319)	3
Survey of American literature, or equivalent (Engl. 255, 256)	6
Survey of English literature, or equivalent (Engl. 209, 210)	6
Descriptive English Grammar (Engl. 302)	3
Theory and Practice of Written Composition (Engl. 381)	3
English electives	11
Six of these hours must be in courses restricted to advanced undergraduates. It is recommended that electives be chosen from English offerings in literary genres, world and/or classical literature, literary criticism, contemporary literature, backgrounds to literature, rhetoric, and linguistics.	
Total	32

TEACHER EDUCATION MINOR OR SUPPORTING AREAS OF CONCENTRATION

Students selecting the teacher education major in English (Option A) must (1) complete one of the teacher education minors listed on page 88, or (2) complete at least three courses in each of two areas of concentration, or (3) complete at least two courses in each of three areas of concentration. The areas of concentration are language and communications; language performance, oral and written; humanities and philosophy; methods and theories of critical processes; world and classical literatures; and the teaching of components of English. Courses for the areas of concentration must be elected in consultation with the adviser. Students selecting the teacher education major in literature (Option B) must complete the approved teacher education minor in rhetoric or the approved teacher education minor in the teaching of English as a second language.

TOTAL

Including general education and professional education credits, at least 120

OPTION B: TEACHER EDUCATION MAJOR IN LITERATURE

Poetry, drama, fiction, or honors seminar (Engl. 101, 102, 103)	6
Introduction to Shakespeare (Engl. 118, 318, 319)	3-6
Literary Criticism (Engl. 215 or 277)	3
Survey of American literature (Engl. 255, 256)	6
Survey of English literature (Engl. 209, 210)	6
Advanced English electives	5-8
Total	29-35

TEACHER EDUCATION MINOR IN RHETORIC

See pages 88 and 303.

TEACHER EDUCATION MINOR IN ENGLISH AS A SECOND LANGUAGE

See pages 88 and 303.

TOTAL

Including general education and professional education credit, at least 120

Specialty in General Science

In order to remain in good academic standing in the program, a student must satisfy the following requirements (in addition to those requirements applicable to all teacher education curricula): (1) a student must have at least a 3.5 (A = 5.0) University of Illinois and cumulative grade-point average to remain in the curriculum and (2) a student must also have at least a 3.0 University of Illinois and cumulative average in all attempts at science/mathematics courses taken at the University and elsewhere in order to remain in the curriculum.

PROFESSIONAL EDUCATION REQUIREMENTS	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4-5
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Exceptional Students in Secondary Schools (Sp. Ed. 218)	1
Total	26-30

REQUIRED CORE COURSES

General physics (Phycs. 101, 102 or 106, 107, 108)	10-12
General chemistry (Chem. 101, 102 or 107, 108, 109, 110)	8-10
Life science (Biol. 110, 111)	10
Descriptive statistics or educational measurement	3-4
Two of the following:	
General astronomy or descriptive astronomy (Astr. 101 and 102, or 210)	3-8
Physical geography	4
Physical geology	4

ELECTIVES

Additional electives in science and courses related to science teaching must be chosen in consultation with an adviser and must be taken to bring the total of such work to approximately 70 semester

hours, including 15 semester hours of 200- and/or 300-level courses in sciences, exclusive of those listed immediately above. The completion of a teacher education minor in either biology or mathematics is recommended.[1]

TOTAL

Including general education and professional education credits, at least 120

[1] Courses related to science teaching may include mathematics, computer science, history of science, philosophy of science, anthropology, experimental psychology, physical geography, and science education, exclusive of education courses specifically required.

Specialty in Life Science

In order to remain in good academic standing in the program, a student must satisfy the following requirements (in addition to those requirements applicable to all teacher education curricula): (1) a student must have at least a 3.5 (A = 5.0) University of Illinois and cumulative grade-point average to remain in the curriculum and (2) a student must also have at least a 3.0 University of Illinois and cumulative average in all attempts at science/mathematics courses taken at the University and elsewhere in order to remain in the curriculum.

PROFESSIONAL EDUCATION REQUIREMENTS	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4-5
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Exceptional Students in Secondary Schools (Sp. Ed. 218)	1
Total	26-30

REQUIRED CORE COURSES

General physics (Phycs. 101, 102 or 106, 107, 108)	10-12
General chemistry (Chem. 101, 102 or 107, 108, 109, 110)	8-10
Life science (Biol. 110, 111)	10
Descriptive statistics or educational measurement	3-4
Organic chemistry	5
Physiology (experimental, including laboratory)	5
Microbiology (including laboratory[1])	6
Genetics	4
Vertebrate or invertebrate zoology	3-5
Ecology	3-5
Plant biology (advanced level)	3-5

ELECTIVES

Additional electives in science and courses related to science teaching must be taken to bring the total of such work to approximately 70 semester hours, and must be selected in consultation with an adviser. The completion of a teacher education minor in mathematics or one of the physical sciences is recommended.[2]

TOTAL

Including general education and professional education credits, at least 120

[1] Microbiology laboratory may be taken for 3 to 5 hours credit. The minimum required for teacher education is 3 hours. Students with particular interest in microbiology may take additional hours.

[2] Courses related to science teaching may include mathematics, history of science, philosophy of science, anthropology, experimental psychology, physical geography, and science education exclusive of the education courses specifically required.

Specialty in Mathematics

In order to remain in good academic standing in the program, a student must satisfy the following requirements (in addition to those requirements applicable to all teacher education curricula): (1) a student may not receive more than 5 hours with grades of C or below in the calculus sequence; (2) a student must maintain a 3.5 (A = 5.0) grade-point average in mathematics

courses beyond calculus, and (3) a student must maintain a 3.5 University of Illinois and cumulative grade-point average to remain in the program.

PROFESSIONAL EDUCATION REQUIREMENTS	HOURS
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	1
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	1
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Micro-teaching (Se. Ed. 239) or 15 clock hours of tutorial experience of mathematics tutoring in an approved mathematics tutorial program	0-2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	5
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Exceptional Students in Secondary Schools (Sp. Ed. 218)	1
Total	23-28

REQUIRED COURSES	
Calculus and analytic geometry	10-11
Topics in Geometry (Math. 302)	3
Linear algebra (Math. 225, 315, or 318)	2-3
Real analysis (Math. 344 or 347)	3
Abstract algebra (Math. 317)	3
Probability-statistics (Math. 263/Stat. 210, Math. 361/Stat. 351, or Math. 363/Stat. 310)	3-4
Computer science (C.S. 101 or 105 or 121)	3-4
Each student must also select at least three additional courses (9 hours) from the field lists below. This selection must include courses from at least two different field lists	9
Geometry-topology: 303, 323, 332	
Analysis: 247, 306, 341 or 345, 346 or 348, 384	
Algebra: 305, 313, 319, 353, 383	
Probability-statistics: 364, 368, 369	
With the approval of the adviser, topics courses such as Math. 351 may be used in the field list most appropriate to the content of a particular offering of that course.	
Total hours in mathematics and computer science	36-40

TOTAL	
Including general education and professional education credits, at least	120

Specialty in Physical Science

In order to remain in good academic standing in the program, a student must satisfy the following requirements (in addition to those requirements applicable to all teacher education curricula): (1) a student must have at least a 3.5 (A = 5.0) University of Illinois and cumulative grade-point average to remain in the curriculum and (2) a student must also have at least a 3.0 University of Illinois and cumulative average in all attempts at science/mathematics courses taken at the University and elsewhere in order to remain in the curriculum.

PROFESSIONAL EDUCATION REQUIREMENTS	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4-5
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Exceptional Students in Secondary Schools (Sp. Ed. 218)	1
Total	26-30

REQUIRED CORE COURSES	
General physics (Phys. 101, 102 or 106, 107, 108)	10-12
General chemistry (Chem. 101, 102 or 107, 108, 109, 110)	8-10
Life science (Biol. 110, 111)	10
Descriptive statistics or educational measurement	3-4
One of the following options must be completed:	

OPTION A: CHEMISTRY

Twenty-two to 24 hours in chemistry beyond the core courses. For more detailed information, refer to the Curriculum Preparatory to the Teaching of Chemistry on page 291. Additional electives in science and courses related to science teaching must be chosen in consultation with an adviser and must be taken to bring the total of such work to approximately 70 semester hours. The completion of a teacher education minor in mathematics, physics, or biology is recommended.[1]

OPTION B: PHYSICS

Nineteen hours in physics beyond the core courses. For more detailed information, refer to the Curriculum Preparatory to the Teaching of Physics on page 300. Additional electives in science and courses related to science teaching must be taken to bring the total of such work to approximately 70 semester hours. The completion of a teacher education minor in either mathematics or chemistry is recommended.[1]

OPTION C: EARTH SCIENCE

Thirty-two hours in earth science beyond the core courses. For more detailed information, refer to the Curriculum Preparatory to the Teaching of Earth Science on page 293. Additional electives in science and courses related to science teaching must be taken to bring the total of such work to approximately 70 semester hours. The completion of a teacher education minor in biology, mathematics, or one of the physical sciences is recommended.[1]

TOTAL

Including general education and professional education credits, at least 120

[1] Courses related to science teaching may include mathematics, history of science, computer science, philosophy of science, anthropology, experimental psychology, physical geography, and science education, exclusive of education courses specifically required.

Specialty in Social Studies

This specialty offers preparation for teachers of courses in history, sociology, economics, political science, geography, and general social studies.

PROFESSIONAL EDUCATION REQUIREMENTS	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	3
Educational Practice in Secondary Education (Ed. Pr. 242)	8
Exceptional Students in Secondary Schools (Sp. Ed. 218)	1
Total	28

Two arrangements are provided for completing the major and minor requirements:

Option A requires a social studies major of 41 hours and a minor of 20 to 24 hours in an approved teaching field outside the social studies (English, a foreign language, mathematics, etc.). The major under option A consists of two parts: (1) 20 hours in history, and (2) 21 hours in anthropology, economics, cultural geography, political science, and sociology chosen in consultation with an adviser and distributed to provide one course in each of four fields and some concentration in two of the fields.

Option B requires a social studies major of 36 hours and a minor of 20 hours which is also within the social studies field. The major under option B consists of two parts: (1) 16 to 21 hours in history and (2) 15 to 20 hours in anthropology, economics, cultural geography, political science, and sociology distributed to provide courses in three of the five fields. The 20-hour minor is taken entirely in one of the areas of anthropology, economics, geography, political science, or sociology which has not been included in the major.

The choice of options will be selected in consultation with an adviser. Under each option, at least one survey course in American history and one course in American government is required.

TEACHER EDUCATION MINOR IN ADULT AND CONTINUING EDUCATION

The purpose of this minor is to offer students a course of study to increase their competence as teachers of adults and to open avenues for expanded career options for those planning to be teachers. This is not a field in which one can be certified for elementary or secondary teaching in Illinois. Students should consult with the continuing education adviser, 333 Education Building, before electing to take this minor.

	HOURS
Adult Learning and Development (A.H.C.E. 362)	4
Continuing Education General Seminar (A.H.C.E. 380)	4
Instructional Design (A.H.C.E. 363)	4
Electives (for the selection of electives, students must have prior approval of the adult and continuing education adviser, 276 Education Building)	6
Total	18

APPROVED NONTEACHING MINOR[1]

INSTRUCTIONAL APPLICATIONS OF COMPUTERS

A minimum of 18 hours, including the following, is required.

COMPUTER SCIENCE	HOURS
Introduction to computer programming (C.S. 101, 102, 103, 105, or 121)	3-4
Advanced or machine-level programming (C.S. 221 or C.S. 300)	3
Advanced computer science elective[2]	3
Total	9-10

INSTRUCTIONAL APPLICATIONS OF COMPUTERS	
Introduction to instructional applications of computers (Se. Ed. 317)	4
Instructional applications in subject fields (Se. Ed. 356; Se. Ed. 399, sections AC1, AC2, or AC3; Human. 382; or Mus. 210)	2-4
Practicum in instructional applications (Se. Ed. 199)	3

ELECTIVE	
A thesis project (Se. Ed. 249)	3
Total	18-24

Students enrolled in this minor may do practice teaching in schools having computer resources for instructional applications.

[1] This is not a subject field to be taught but is an additional resource to assist the teacher in the instruction of a teacher education major. Please consult an adviser concerning this.

[2] A computer science elective chosen from among the general areas of programming, numerical analyses, structure and logic, theory of computation, hardware, or applications of computing.

CURRICULUM IN BUSINESS EDUCATION

For the degree of Bachelor of Science in Business Education

All students complete requirements as outlined in prescribed courses in business education, general education, professional education, one or more areas of specialization, and general electives. Admission is limited to students who have completed a minimum of 60 semester hours and who meet competitive grade-point average requirements. Students must complete the requirements of one area of specialization.* Students may also complete a second area of specialization or one of the approved teacher education minors. Students must complete 100 hours of early field experience before student teaching. A minimum of 126 hours of credit is required for graduation, excluding basic military.

For teacher education requirements applicable to all curricula, see pages 87 to 91.

GENERAL EDUCATION COURSES	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective	6-7
Humanities (two approved courses)[1]	6

* Although not a requirement for graduation (in terms of credit hours), a minimum of 2,000 hours of employment experience is required in the occupational specialty to be taught.

Introduction to psychology	3
Natural science (two approved courses)[1]	6
Health and/or basic physical education electives	3
United States history or American government	3-4
Social science elective	3
Statistics (Math. 161, Econ. 171, or Econ. 172)	3
Calculus	4-5
Electives	2-5
Total	42

[1] Courses in the natural sciences and humanities may be selected from the disciplines listed on page 162.

PROFESSIONAL EDUCATION REQUIREMENTS	HOURS
Nature of the Teaching Profession (Vo. Tec. 101)	2
Principles of Vocational and Technical Education (Vo. Tec. 240)	2
Curriculum Modification and Individualized Instruction (Vo. Tec. 392)	2-4
Technique and Curriculum Development for Teaching Data Processing and Office Machines (Vo. Tec. 271)	3
Teaching Exceptional Students (Vo. Tec./Sp. Ed. 309 or Sp. Ed. 307)	3-4
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	5
Educational Practice in Secondary Education (Ed. Pr. 242)	8
Total	31-34

FOUNDATION COURSES IN BUSINESS	HOURS
Principles of Accounting I and II (Accy. 201 and 202)	6
Introduction to Economics (Econ. 101)	4
Business and Administrative Communication (B. & T.W. 251)	3
Legal Environment of Business (B. Adm. 200)	3
Consumer education (course approved by adviser)	3
Computer science (C.S. 105 or 106)	3
Total	22

Areas of Specialization

ACCOUNTING-BOOKKEEPING	HOURS
Intermediate Accounting (Accy. 211)	3
Cost Accounting (Accy. 221)	3
Management and Organizational Behavior (B. Adm. 210 or 247)	3
Business related electives chosen with the approval of the adviser	9
Total	18

ECONOMICS	
Economic Statistics II (Econ. 173)	3
Intermediate Microeconomic Theory (Econ. 300)	3
Intermediate Macroeconomic Theory (Econ. 301)	3
Business related electives chosen with the approval of the adviser	6-9
Select three of the five courses listed	9
Introduction to Public Finance (Econ. 214)	
Labor Problems (Econ. 240)	
Comparative Economic Systems (Econ. 255)	
Economics of Consumption (Econ. 313)	
Introduction to Business Financial Management (Fin. 254)	
Total	24-27

MARKETING AND DISTRIBUTIVE EDUCATION	
Principles of Marketing (B. Adm. 202)	3
Principles of Retailing (B. Adm. 212)	3
Promotion Management (B. Adm. 337)	3
Cooperative Vocational and Technical Education Programs (Vo. Tec. 382)	4
Business related electives chosen with the approval of the adviser	6
Total	19

SECRETARIAL-OFFICE PRACTICE[1]	
Cooperative Vocational and Technical Education Programs (Vo. Tec. 382)	4
Management and Organizational Behavior (B. Adm. 210 or 247)	3
Business related electives chosen with the approval of the adviser	12
Total	19

Electives to bring total hours to 126. Elective hours must be in business, vocational education, or other areas chosen in consultation with the adviser.

[1] Students who wish to teach in special fields requiring essential competencies in an applied area such as typing, shorthand, or office machines must obtain an acceptable level of proficiency prior to enrollment in the program, or outline a plan whereby these skills may be obtained prior to enrollment in student teaching. Proficiency levels are validated by the business education faculty through examination.

CURRICULUM IN EARLY CHILDHOOD EDUCATION

For the degree of Bachelor of Science in Early Childhood Education

This program leads to a standard Illinois K-9 certificate with special focus on teaching in the nursery school and kindergarten-primary grades. A minimum of 124 semester hours of credit, excluding basic military, is necessary for graduation under this curriculum.

For teacher education requirements applicable to all curricula, see pages 87 to 91.

This program is currently under revision. Please consult the program adviser for current degree requirements.

LANGUAGE ARTS	HOURS
Rhet. 105 and a performance-based speech communication course, or Rhet. 108 and a performance-based speech communication course, or Sp. Com. 111 and 112	6-7
Literature	6
Children's literature (El. Ed. 367)	3
Total	15-16

SOCIAL SCIENCE	
Social science elective courses approved by adviser	6-8
History of the United States (Hist. 151, 152, 260, 261, 262)	3-4
American government (Pol. S. 150)	3
Total	12-15

NATURAL SCIENCE	
Biological science	6-8
Physical science (mathematics not acceptable)	6-8
Total	12-16

FINE ARTS	
Music for early childhood education (Music 240, 249)	6
Art for the elementary school (Art Ed. 203, 205)	6
Total	12

HUMANITIES	
May be fulfilled with literature courses above	6

MATHEMATICS	
Including content and methods (Math. 202)	5

PSYCHOLOGY	
Introduction to psychology	3

HEALTH AND/OR PHYSICAL EDUCATION	
Health or physical education for the elementary school (P.E. 269 or H.S.S. 225 or 312)	3
Basic physical education activities	2
Total	5

PROFESSIONAL EDUCATION	
Foundations of American Education (E.P.S. 201)	3
Child Development for Elementary Teachers (Ed. Psy. 236)	3
Fundamentals of Nursery-Kindergarten Education (El. Ed. 234)	3
Principles and Practices in Early Childhood Education (El. Ed. 321)	3
Parent involvement techniques for teachers (El. Ed. 322, H.D.F.E. 210, or Anth. 210)	3
Pediatrics and nutrition (H.D.F.E. 305, El. Ed. 305, or F.N. 120)	3
Educational practice for special fields — early childhood education (Ed. Prac. 238)	3
Theory and Process in Elementary School Teaching (El. Ed. 237)	5
Teaching of Language Arts in the Elementary School (El. Ed. 360)	3
Fundamentals of Reading Techniques (El. Ed. 370)	3

Teaching Social Studies in the Elementary School (El. Ed. 345) 3
Science in the Elementary School (El. Ed. 341) 3
Educational Practice In Elementary Education (Ed. Prac. 232) 8
Principles, Problems, and Issues in Elementary and Early Childhood Education (El. Ed. 230) 3
Total 49

ELECTIVES

To yield a total (with above requirements) of 124

CURRICULUM PREPARATORY TO ELEMENTARY SCHOOL TEACHING

For the degree of Bachelor of Science in Elementary Education

A minimum of 124 semester hours, excluding basic military, is neccessary for graduation under this curriculum.

For teacher education requirements applicable to all curricula, see pages 87 to 91.

This program is currently under revision. Please consult the program adviser for current degree requirements.

LANGUAGE ARTS — HOURS

Rhet. 105 and a performance-based speech communication course, or Rhet. 108 and a performance-based speech communication course, or Sp. Com. 111 and 112 6-7
Literature 6
Children's literature (El. Ed. 367) 3
Total 15-16

SOCIAL SCIENCE

Social science elective courses approved by adviser 6-8
History of the United States (Hist. 151, 152, 260, 261, 262) 3-4
American government (Pol. S. 150) 3
Cultural geography 3-4
Total 15-19

NATURAL SCIENCE

Biological science 6-8
Physical science (mathematics not acceptable) 6-8
Total 12-16

FINE ARTS

Music for elementary teachers (Music 240, 241) 6
Art in the elementary grades (Art Ed. 203, 205) 6
Total 12

HUMANITIES

May be fulfilled with literature courses above 6

MATHEMATICS

Mathematics for elementary teachers (Math. 202, 203) 8

PSYCHOLOGY

Introduction to psychology 3

HEALTH AND/OR PHYSICAL EDUCATION

Health or physical education for the elementary school (P.E. 269 or H.S.S. 312) 3
Health and/or basic physical education activities 2
Total 5

ACADEMIC AREA OF CONCENTRATION

At least 12 hours (6 of which must be above the 100 level) in one of the specific disciplines approved by the Department of Elementary and Early Childhood Education within these broad fields of study: social sciences, natural sciences and mathematics, humanities, and fine arts. All 12 hours must be in addition to any other requirements of the Curriculum Preparatory to Elementary School Teaching. Contact the departmental office for a list of currently approved disciplines.

PROFESSIONAL EDUCATION

Foundations of American Education (E.P.S. 201) 3
Child Development for Elementary Teachers (Ed. Psy. 236) 3

Theory and Process in Elementary School Teaching (El. Ed. 237) 5
Teaching Social Studies in the Elementary School (El. Ed. 345) 3
Science in the Elementary School (El. Ed. 341) 3
The Teaching of Language Arts in the Elementary School (El. Ed. 360) 3
Fundamentals of Reading Techniques (El. Ed. 370) 3
Educational Practice in Elementary Education (Ed. Pr. 232) 8
Principles, Problems, and Issues in Elementary and Early Childhood Education (El. Ed. 230) 3
Total 34

ELECTIVES

To yield a total (with above requirements) of 124

CURRICULUM IN TECHNICAL EDUCATION SPECIALTIES

For the degree of Bachelor of Science in Occupational and Practical Arts Education

The curriculum outlined below requires a minimum of 128 hours for graduation (excluding basic military science) and provides options for preparing for two types of roles in education.

Option A is designed for those persons preparing to obtain certification to teach in public schools including secondary area vocational centers and high schools or junior high schools. Examples of technical specialties commonly taught at these levels include ornamental horticulture and programs in industrial arts or vocational-industrial education in fields such as automotive/power, metalworking, drafting, woodworking, and electricity/electronics.

Option B prepares persons for educational roles in settings where public school certification is not necessary: for example, community colleges, adult vocational programs, business and industry, or governmental agencies. Examples of technical specialties commonly taught and/or directed in these settings include fields such as police science, fire science, and industrial technologies (automotive, electronics, construction, metalworking, aviation).

For teacher education requirements applicable to all curricula leading to public school certification, see pages 87 to 91.

Students seeking public school certification must complete 100 contact hours of supervised observation and participation experience prior to teaching.

Fifty contact hours of supervised observation and participation experiences must be completed by students pursuing Option B prior to the educational internship.

GENERAL EDUCATION REQUIREMENTS — HOURS

Sp. Com. 111 and 112, or Rhet. 105 *and* a speech communication performance elective, or Rhet. 108 and a speech communication performance elective 6-7
General psychology 3
Natural sciences[1] 6-8
Humanities[1] 6-8
History of the United States (Hist. 151 or 152) or Pol. S. 150 3-4
Social science elective 3
Health and/or basic physical education activities 3
Total 30-36

[1] Courses in the humanities and natural sciences may be selected from the disciplines listed on page 162.

PROFESSIONAL EDUCATION REQUIREMENTS COMMON TO ALL TECHNICAL EDUCATION SPECIALTIES

History and philosophy of education (E.P.S. 201) 3
Principles of occupational and practical arts education 2-6
Psychology of teaching and learning (Ed. Psy. 211) 3
Methods of teaching 3
Pre-educational practice or pre-educational internship experiences 3
Curriculum development where required or elective approved by adviser 3-4
Teaching Exceptional Students (Option A) (Votec./Sp. Ed. 309 or Sp. Ed. 307) 3-4
Educational practice (Option A) or Educational internship (Option B) 5-8
Total 22-34

TECHNICAL EDUCATION SPECIALTY REQUIREMENTS

The technical education specialties curriculum provides the opportunity for planning individual programs of study under the supervision of a faculty adviser in the student's special field(s) of interest. Examples of specific programs are on file with the Department of Vocational and Technical Education to aid in program planning.

Each student will develop a pattern of courses in one or more technical specialties and supporting courses comprised of at least 48 semester hours.

SUPERVISED OCCUPATIONAL EXPERIENCE

Cooperative arrangements have been made by the University for supervised occupational experience of technical education specialty students while employed in selected employment locations. This program is designed for students preparing to become certified vocational or technical specialty instructors, for students preparing for employment in training departments maintained by business or industrial organizations, or for students preparing to be teachers of selected occupations. Students may accumulate up to 17 semester hours of credit through registration in Vo. Tec. 189 — Supervised Occupational Experience.

Cooperative arrangements have been established with some community colleges whereby registration in this program may be accomplished after completion of the freshman year.

CURRICULUM PREPARATORY TO TEACHING MODERATELY AND SEVERELY HANDICAPPED PERSONS

For the degree of Bachelor of Science in Special Education

This two-year curriculum is designed to prepare students to teach students with moderate and severe handicaps. Applicants must have a cumulative grade-point average of at least 3.5 (A = 5.0), have prior experience[1] with moderately and severely handicapped persons, and have attained junior standing (at least 60 semester hours of baccalaureate credit) upon enrollment in the program. A minimum of 124 hours of credit, excluding basic military, is required for graduation.

To allow completion of degree requirements within two years, applicants must have earned 60 hours and must have fulfilled all or most of the following general education and preferably some of the professional education requirements prior to enrollment. Admission is made by formal application during the spring semester of the sophomore year.

For teacher education requirements applicable to all curricula leading to public school certification, see pages 87 to 91.

GENERAL EDUCATION REQUIREMENTS	HOURS
Composition and speech performance (e.g., Sp. Com. 111 and 112, or Rhet. 105 and a speech performance course, or Rhet. 108 and a speech performance course)	6-7
Biological science[2]	6
Physical science[2]	6
American history or American national government	3-4
Social science electives	6
Humanities[2]	6
Health and/or physical education	3
Mathematics or statistics	3-4
Child development	3
Introduction to psychology	3
General education electives to bring total to 60	12-15

[2] Courses in the humanities and natural sciences may be selected from those disciplines listed on page 162.

PROFESSIONAL EDUCATION REQUIREMENTS	HOURS
History and/or Philosophy of Education (E.P.S. 201, 300, 301, 302, 305, or 309)	3
School and Community Experience (Ed. Pr. 150, Section MSH)	4
Educational Practice in the Education of Exceptional Children (Ed. Pr. 220, Section MSH, Secondary focus)	6
Instructional Design (Ed. Psy. 363)	4
Introduction to Systematic Instruction (Sp. Ed. 336)	4
Total	21

SPECIAL EDUCATION CORE REQUIREMENTS	HOURS
Recreation for the Physically Disabled (Leist. 233)	3
Development of Spoken Language (Sp. H.S. 383)	3
Language Disorders in Children (Sp. H.S. 386)	3

[1] Applicants may contact the Department of Special Education for further information, if needed, on the prior experience requirement.

Educational Practice in Education of Exceptional Children (Ed. Pr. 220, Section MSH, Elementary focus) 8
Exceptional Children (Sp. Ed. 117) 3
Psychology and Education of the Mentally Handicapped (Sp. Ed. 322) 3
Tests and Measurement in Special Education (Sp. Ed. 324) 2
Behavior Analysis for Teachers (Sp. Ed. 335) 3
Curriculum Development and Classroom Organization for Students with Moderate and Severe Handicaps (Sp. Ed. 337) 4
Teaming with Parents and Staff: Communication, Training, and Cooperation (Sp. Ed. 338) 2
Vocational Training for Mentally Retarded Adolescents and Adults (Sp. Ed. 345) 3
Total 37

ELECTIVES

To yield a total (with above requirements) of 124

College of Engineering

Engineering Hall, 1308 West Green Street, Urbana, IL 61801

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The College of Engineering prepares men and women for professional careers in engineering and for responsible positions of a technical and semitechnical character in industry, commerce, education, and government. The college provides training in the mathematical and physical sciences and their application to a broad spectrum of technological and social requirements of society. The engineering curricula, though widely varied and specialized, are built on a general foundation of scientific theory applicable to many different fields. Work in the classroom and laboratory is brought into sharper focus by practical problems that the student solves by methods similar to those of practicing engineers.

While each student pursues a curriculum chosen to meet his or her own career goals, all students take certain common courses. Basic courses in mathematics, chemistry, physics, rhetoric, and computer science are required in the first two years. Although the curricula are progressively specialized in the third and fourth years, each student is required to take some courses outside his or her chosen field.

Nontechnical courses are included in each curriculum; they may be required or elective. Many nontechnical courses satisfy the broad objectives of the humanities and social sciences requirements of the engineering curricula — making the student keenly aware of the urgent problems of society and developing a deeper appreciation of man's cultural achievements. The humanities and social sciences courses are usually drawn from the liberal arts and sciences, economics, and approved courses in fine and applied arts. Students who wish a broader cultural background should consider a combined engineering–liberal arts and sciences program; see page 178.

The Engineering Library, on the first three floors of Engineering Hall, is a major resource center for students of all curricula. It contains the reference books, periodicals, catalogs, and technical publications that students need constantly, and also provides for general reading and private research.

DEPARTMENTS AND CURRICULA

The College of Engineering includes the Departments of Aeronautical and Astronautical Engineering, Ceramic Engineering, Civil Engineering, Computer Science, Electrical and Computer Engineering, General Engineering, Mechanical and Industrial Engineering, Metallurgy and Mining Engineering, Nuclear Engineering, Physics, and Theoretical and Applied Mechanics. The undergraduate curricula described later in this section are administered by these units. The work in chemical engineering is administered by the College of Liberal Arts and Sciences.

The curriculum in agricultural engineering is administered jointly by the Colleges of Agriculture and Engineering.

The ABET listing of the programs of the College of Engineering, required by the Engineering Accreditation Commission, is: Aeronautical and Astronautical Engineering bdC [1950];[1] Agricultural Engineering bdC [1950]; Ceramic Engineering bdC [1936]; Chemical Engineering bdC [1936]; Civil Engineering bdC [1936]; Computer Engineering bdC [1978]; Electrical Engineering bdC [1936]; Engineering Mechanics bdC [1960]; General Engineering bdC [1936]; Industrial Engineering bdC [1960]; Mechanical Engineering bdC [1936]; Metallurgical Engineering bdC [1936]; and Nuclear Engineering bdC [1978].

Each student entering the College of Engineering declares his or her choice of a curriculum. All first-year students follow the common program for freshmen shown below.

ADMISSION REQUIREMENTS

Entering Freshmen

Students seeking admission to the College of Engineering who are recent high school graduates or who have earned less than 12 semester hours of credit at other collegiate institutions are classified as new freshmen and must meet the entrance requirements to the College of Engineering that are specified for new freshmen. (See the Admissions Chart on page 12.) Students are admitted to the college on a best-qualified basis as determined by ACT composite scores and high school percentile ranks supplied on high school transcripts.

Although new freshmen take a common, or similar, program (shown below), they are asked to choose a curriculum in which they wish to study. Freshmen may change their curriculum of study at their own request at specified times during their freshman year of study. Since the program of study is essentially the same for all freshman students, such changes can be made without loss of credit toward graduation.

The Mathematics Placement Test is required of all freshman students entering the College of Engineering, and they are urged to take the examination during the spring testing period prior to enrollment.

The Chemistry Placement Test is required of all entering freshmen who will take freshman chemistry during their first year. This examination will be used to place a student in a background course for engineers, Chem. 100, or in the normal beginning course for engineers, Chem. 101. Students with a superior background in chemistry may take the Chemistry Proficiency Test which, if passed, would place them in Chem. 102 and grant them 3 hours proficiency credit for Chem. 101; the additional 1 hour must be made up as a free elective. Students having CEEB advanced placement credit in mathematics, chemistry, or physics (see pages 34 and 36) will receive credit toward graduation and will be placed in advanced course work consistent with their academic preparation.

COMMON FIRST-YEAR PROGRAM	HOURS
Engineering lectures	0
Chemistry[1]	6-8
Mathematics[2]	8-10
Physics	4
Rhetoric	4
Engineering electives	0-6
Electives	3-6
Total	31-36

[1] The normal freshman chemistry sequence is Chem. 101 and 102.
[2] Entering freshmen who do not pass the Mathematics Placement Test will take Math. 112 and 114 or 116.

Transfer Students

The College of Engineering admits qualified transfer students from both junior and senior colleges and has worked closely with these schools in Illinois to implement pre-engineering programs.

Students may complete the first two years of study in other accredited institutions and

[1] b = bachelor's degree, basic level accreditation; d = day; C = co-op feature meeting special requirements of the ABET criteria

transfer to the University of Illinois at Urbana-Champaign with little or no loss of credit provided they follow a program similar to the one in the College of Engineering. Following is a suggested list of courses which should be completed in the first two years prior to transfer. A range of hours is given in each of these course work areas, as the major concern is that students have an adequate coverage of basic subject matter rather than specific numbers of hours in given areas. The range is given for students who may be attending schools on either the quarter-hour or semester-hour system.

SUGGESTED PRE-ENGINEERING COURSES	RANGE OF HOURS Quarter Hours	Semester Hours
Freshman chemistry	10-15	6-10
General physics (taught using calculus)	12-18	8-12
English (rhetoric and composition)	6-9	4-6
Mathematics (total mathematics credits)	20-24	15-17
Calculus or calculus and analytic geometry	16-20	12-14
Differential equations	3-4	3
Engineering graphics (mechanical drawing and/or descriptive geometry)	4-6	3-4
Applied mechanics — statics	3-4	2-3
Applied mechanics — dynamics	3-6	2-3
Computer science (FORTRAN programming)	3-4	3

OTHER COURSES	RANGE OF HOURS Quarter Hours	Semester Hours
Social sciences and humanities	Varies	Varies
Statistics	4	3

Students should complete as many of the suggested courses as possible and select additional course work from those listed as Other Courses above to complete full-time study programs. Normally, a student will complete all of the suggested courses and 8 to 10 additional semester hours of course work. This additional course work may include social sciences and humanities electives, but could include work in computer science or advanced mathematics.

Before selecting social sciences and humanities electives, students should familiarize themselves with the elective requirements of the college listed on 181 through 183. Students seeking transfer to the college must have a cumulative grade-point average of at least 3.50 (A = 5.0) to apply, but competitive standards for admission are usually higher than the 3.5 level.

Students may transfer to the college for the fall, spring, or summer session provided the students have met competitive GPA cutoffs and have completed 60 or more semester hours of work. Transfer students are expected to have also completed the basic mathematics (through calculus), physics, and chemistry sequences in the 60 or more semester hours required for transfer. Transfer students starting their studies in the fall semester are also allowed to advance enroll during the preceding summer. Students are informed of this opportunity after they are admitted. Questions are invited concerning this procedure.

A few sophomore-level technical courses, such as E.E. 260, M.E. 220, and C.E. 195, may not be offered by most community colleges. However, junior-level transfer students can usually arrange their programs here so that all technical requirements can be completed in a four-semester period on this campus if they wish to do so. If the number of hours remaining to complete a degree requires more than four semesters, the student may enroll for an additional summer session or semester.

Students transferring to the College of Engineering are encouraged to write to the Office of the Associate Dean, University of Illinois at Urbana-Champaign, 207 Engineering Hall, 1308 West Green Street, Urbana, IL 61801, or to the head of the department to which they wish to transfer, at any time they desire guidance in the selection of courses. It is recommended that a student complete all sequences in mathematics, physics, and chemistry at one institution in order to maintain proper continuity. In cases where this is not possible, a student may enroll in a summer session to make up deficiencies.

Transfer students are not required to take freshman guidance examinations, or any other examinations, to qualify for admission to the College of Engineering; but all other admission regulations apply to them. Transfer students should consult Admission of Transfer Students on page 21 for general information concerning transfer to the University of Illinois at Urbana-

Champaign, and students from community colleges should note especially the rules regarding community colleges on pages 22 through 23.

SPECIAL PROGRAMS

Combined Engineering–Liberal Arts and Sciences Program

A five-year program of study permits a student to earn a Bachelor of Science degree in a field of engineering from the College of Engineering and a Bachelor of Arts or a Bachelor of Science degree from the College of Liberal Arts and Sciences at the Urbana-Champaign campus.

This program affords students the opportunity to prepare for careers of an interdisciplinary nature. By selecting an appropriate liberal arts and sciences major in combination with the desired engineering curriculum, it is possible for students to qualify for new and unique careers in industry, business, or government. Students who desire a broader background than it is possible to provide in the four-year engineering curricula can develop a program that includes a well-rounded cultural education in addition to an engineering specialty. Each student must file an approved program with the engineering college office and with the liberal arts and sciences college office.

Advisers in both colleges assist in planning a program of study to meet the needs and requirements for both degrees. Most combinations of engineering and liberal arts curricula may be completed in ten semesters, provided the student does not have deficiencies in the entrance requirements of either college.

Most engineering curricula can be combined with one of a variety of liberal arts and sciences majors including languages, social sciences, humanities, speech communication, and philosophy. This combined program operates under the following conditions:

— Students entering the program must meet admission requirements for both colleges. (See the Admissions Chart on pages 12, 13, and 14.)
— A student who starts in the program and decides to transfer from it is subject to the existing graduation requirements of the college of his or her choice.
— The degrees of Bachelor of Science in Engineering and Bachelor of Arts or Bachelor of Science in Liberal Arts and Sciences are awarded simultaneously. No student in the combined program is permitted to receive a degree from either college before the completion of the entire program.
— Participants are required to complete the College of Liberal Arts and Sciences foreign language graduation requirement. Also, an approved sequence of courses in the biological sciences is required.
— Students electing advanced ROTC or NROTC are required to meet these commitments in addition to the combined program as outlined.
— Students having 75 or more hours of transfer credit are not advised to enter this program since they cannot ordinarily complete it in five years.
— Students transferring from other colleges and universities must plan to complete at least one year in the College of Liberal Arts and Sciences at Urbana-Champaign and one year in the College of Engineering at Urbana-Champaign in order to satisfy residence requirements if both degrees are to be granted here. Other students should plan to spend a minimum of two years in each college.
— Students are expected to maintain at least a 3.5 (A = 5.0) grade-point average to be accepted or continued in the program. A higher grade-point average may be required in the future.

During the first year, students are enrolled in the common freshman program for engineers which is taken in the College of Engineering. (See page 176.) Students are enrolled in the College of Liberal Arts and Sciences for the second and third years and in the College of Engineering for the fourth and fifth years. A typical combined program follows.

SECOND YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Biological science	4	Biological science	4
Calculus and analytic geometry	5	Language	4
Humanities or social sciences	4	Liberal arts and sciences major	3
Language	4	Physics (heat, electricity, and magnetism)	4
Total	17	Total	15

THIRD YEAR

Humanities or social sciences	4
Language	4
Liberal arts and sciences major	6
Physics (wave motion, sound, light, and modern physics)	4
Total	18

Engineering subjects	6-8
Humanities or social sciences	4
Language	4
Liberal arts and sciences major	3
Total	17-19

FOURTH YEAR

Engineering subjects	15
Humanities or social sciences	4
Total	19

Engineering subjects	18

FIFTH YEAR

Engineering subjects	15-17

Engineering subjects	18

It may be necessary to adjust the above program to allow the student to take more hours in the L.A.S. program.

For further information about this program, students should write to the Office of the Associate Dean in either the College of Engineering or the College of Liberal Arts and Sciences at the Urbana-Champaign campus.

Affiliations with Other Liberal Arts Colleges

Through a program of affiliation between the College of Engineering and a number of liberal arts colleges, students may enroll in a five-year program and earn a bachelor's degree from one of these colleges and at the same time earn a bachelor's degree in engineering from the University of Illinois at Urbana-Champaign. In general, students spend the first three years at the liberal arts college and the final two years at the University of Illinois at Urbana-Champaign. At the time of transfer, students must meet competitive transfer admission requirements.

Increasing numbers of engineering graduates enter leadership roles in industry and government and require a greater understanding of the impact of technology on society. The five-year program encourages a student to develop a broad understanding of the social sciences and humanities while he or she strives for excellence in technical studies. These affiliations have the added benefit of allowing the student to take his or her preengineering studies at a liberal arts school chosen on the basis of geographical location, prestige, religious principles, family circumstances, or other personal reasons.

Colleges affiliated with the College of Engineering are:

Adrian College
Adrian, Michigan

Anderson College
Anderson, Indiana

Augustana College
Rock Island, Illinois

Beloit College
Beloit, Wisconsin

Butler University
Indianapolis, Indiana

Carthage College
Kenosha, Wisconsin

DePaul University
Chicago, Illinois

Eastern Illinois University
Charleston, Illinois

Elmhurst College
Elmhurst, Illinois

Grace College
Winona Lake, Indiana

Greenville College
Greenville, Illinois

Illinois Benedictine College
Lisle, Illinois
(formerly St. Procopius College)

Illinois College
Jacksonville, Illinois

Illinois State University
Normal, Illinois

Illinois Wesleyan University
Bloomington, Illinois

Knox College
Galesburg, Illinois

Lewis University
Lockport, Illinois

Loras College
Dubuque, Iowa

Loyola University of Chicago
Chicago, Illinois

MacMurray College
Jacksonville, Illinois

McKendree College
Lebanon, Illinois

Millikin University
Decatur, Illinois

Monmouth College
Monmouth, Illinois

North Central College
Naperville, Illinois

Northern Illinois University
DeKalb, Illinois

Olivet Nazarene College
Kankakee, Illinois

Rockford College
Rockford, Illinois

Saint Ambrose College
Davenport, Iowa

Saint Joseph's College
Rensselaer, Indiana

Wartburg College
Waverly, Iowa

Western Illinois University
Macomb, Illinois

Wheaton College
Wheaton, Illinois

Yankton College
Yankton, South Dakota

Cooperative Engineering Education Program

A five-year program in cooperative engineering education is available to students in all curricula in the college. Students in the program alternate periods of attendance at the University with periods of employment in industry or government. The employment, which is an essential element in the educational process, is with the same company each work period and is related to the student's field of study. These assignments increase in difficulty and responsibility with each succeeding period off campus. A list of participating employers may be obtained by writing to the Cooperative Engineering Director, University of Illinois at Urbana-Champaign, 207 Engineering Hall, 1308 West Green Street, Urbana, IL 61801.

Students wishing to join the program must first enroll in the College of Engineering at the University of Illinois at Urbana-Champaign. If accepted by a participating employer, freshmen will have their first off-campus educational assignment scheduled during the summer following their freshman year or they will attend the summer session and have their first off-campus assignment during the fall semester following their freshman year. Typical schedules are illustrated in a co-op brochure available from the cooperative engineering office.

Sophomores and advanced undergraduates are eligible for the program, which will still require five years to complete, but they will have fewer off-campus assignments.

Students enrolled in the cooperative education program are registered in the University and are considered full-time students for the entire five years required by the program. Appropriate entries indicating participation in the co-op program are entered on the student's official transcript each semester and summer that he or she is enrolled. Upon successful completion of the program, the student is awarded a certificate signed by the dean of the college and the off-campus co-op coordinator, in addition to receiving the regular diploma awarded for completing the degree requirements.

College Option in Bioengineering

Bioengineering is a broad, interdisciplinary field that brings together engineering, biology, and medicine to create new techniques, new devices, and new understanding of living systems to improve the quality of human life. Its practice ranges from the fundamental study of the behavior of biological materials to the design and development of medical instruments.

Any of the existing engineering curricula can provide a good foundation for work in bioengineering. However, the engineering undergraduate needs additional education in the biologically oriented sciences to obtain a strong background for bioengineering. With such a background, the student should be able to progress rapidly on the graduate level in any branch of bioengineering. In industry, the graduate will be competent to handle engineering tasks related to biology.

The courses shown below have been selected specifically for the undergraduate engineering student. There are three possible alternatives which can be selected to meet the individual student's plans, designated A, B, and C. The listing of bioengineering courses is not complete, but represents examples of courses which are currently available. An additional course in organic chemistry would be required for entrance to most medical schools. A minimum of 16 hours is required for the option. To obtain recognition for the bioengineering option, students must register in the Office of the Associate Dean, 207 Engineering Hall.

BIOLOGY CORE	ALTERNATIVES A	B	C
Chem. 131 — Elementary Organic Chemistry	3	3	3
Physl. 103 — Introduction to Human Physiology		4	
Physl. 301 — General Physiology[1]	3	3	3
Physl. 302 — Experimental Animal Physiology			3
Physl. 303 — General Physiology Laboratory[1]	2	2	2
Physl. 304 — Experimental Physiology Laboratory[2]		2	2
V.B. 316 — Veterinary Physiology	4		
Mammalian physiology laboratory[3]	1-2		
Total hours for the biology core	13-14	14	13

[1] Biology prerequisites will be waived by the instructor for advanced engineering students.
[2] Engineering students taking core B are not required to take Physl. 302 because Physl. 103 is taken.
[3] Several possible courses; consultation with bioengineering adviser required.

BIOENGINEERING AND RELATED COURSES (ONE OR MORE)	HOURS
Bioen. 120 — Introduction to Bioengineering	1
Bioen. 199 — Undergraduate Open Seminar	0-4
Bioen. 270 — Individual Study	0-4
Bioen. 306 — Veterinary Orthopedic Mechanics (same as V.B. 306)	3
Bioen. 308 — Implant Materials for Medical Applications	3
Bioen. 314 — Biomedical Instrumentation (same as E.E. 314)	3
Bioen. 315 — Biomedical Instrumentation (lab) (same as E.E. 315)	2
Bioen. 370—Special Topics in Bioengineering (various sections cover separate courses which may change each semester)	0-4
Bioen. 375 — Modeling of Biological Systems (same as E.E. 375)	3
Chem. 323 — Applied Electronics for Scientists	4
E.E. 373 — Engineering Acoustics	3
E.E. 374 — Ultrasonic Techniques	3
Eng. H. 297 — Honors Projects in Bioengineering	1-4
G.E. 293 — Special Topics in Biomechanics	1
I.E. 305 — Principles of Ergonomics (same as Physl. 305)	4
Nuc. E. 241 — Introduction to Radiation Protection	3
Nuc. E. 341 — Principles of Radiation Protection	4
Other departmental specialties related to bioengineering (taken as electives)	3-4

College Option in Polymer Science and Engineering

Polymer science and engineering is a broad interdisciplinary field bringing together various aspects of chemistry, physics, and engineering for the understanding, development, and application of the materials science of polymers. Many of the existing engineering curricula provide a good foundation for work in polymer science and engineering. However, the undergraduate needs additional courses specifically dealing with the science and engineering of large molecules. With such a background, the student should be able to progress rapidly in industry or on the graduate level. In addition to those students specifically desiring a career in polymers, this option can also be valuable to students interested in the development, design, and applications of materials in general.

The courses listed below have been selected specifically to give an undergraduate student a strong background in polymer science and engineering. A minimum of 8 courses is required, several of which the student would normally take to satisfy the requirements of the basic degree. To obtain recognition for the polymer science and engineering option, students must register in the Office of the Associate Dean, 207 Engineering Hall. The student should also consult a member of the Polymer Group faculty when considering the option and deciding on a program.

CORE COURSES

Met. E. 375 — Introduction to Polymers, or Chem. E. 392 — Polymer Engineering and Science
Met. E. 378 — Characterization Laboratory[1]
M.E. 355 — Polymer Processing

THERMODYNAMICS (One of the Following)

Met. E. 314 — Metallurgical Thermodynamics
M.E. 205 — Thermodynamics
Phycs. 361 — Thermodynamics and Statistical Mechanics
Chem. E. 370 — Chemical Engineering Thermodynamics

Cer. E. 245 — Physical Chemistry for Engineers, and Cer. E. 307 — Thermal and Mechanical Properties of Ceramics
Chem. 342 — Physical Chemistry 1, and Chem. 344 — Physical Chemistry 2

MECHANICAL PROPERTIES
T.A.M. 221 — Elementary Mechanics of Solids

ORGANIC CHEMISTRY (One of the Following)
Chem. 131 — Elementary Organic Chemistry
Chem. 136 — Basic Organic Chemistry

RELATED COURSES (At Least Two of the Following)[2]
Met. E. 299a — Structure and Properties of Polymers
Met. E. 299b — Polymer Viscosity
T.A.M. 328 — Mechanical Behavior of Composite Materials
Cer. E. 398a — Chemistry of Polymeric Materials
Cer. E. 398b — Polymer Surfaces and Colloid Physics
Chem. E. 387 — Applied Chemical Kinetics and Catalysis
Phycs. 350 — Biomolecular Physics
Phycs. 389 — Introduction to Solid-State Physics
Chem. 336 — Organic Chemistry
Chem. 337 — Organic Chemistry
T.A.M. 321 — Advanced Mechanics of Deformable Bodies
M.E. 346 — Design and Materials

[1] Although this is the desired course, one of the following would also be acceptable.
M.E. 233 — Materials Laboratory
Met. E. 371 and 373 — Physical Metallurgy Laboratory I and II
Chem. 134 — Elementary Organic Chemistry Laboratory
Chem. 181 — Structure and Synthetics
Bioen. 308 — Implant Materials for Medical Applications
Chem. E. 374 — Chemical Engineering Laboratory
Cer. E. 202, 311, 314 — Ceramics laboratory courses

[2] Other polymer-related courses may be substituted upon petition.

College Option in Manufacturing Engineering

A manufacturing engineering option is being developed that will include a college-wide integrated manufacturing engineering education laboratory facility. This option will be comprised of course work specifically designed to meet the broad multidisciplinary needs of manufacturing engineering.

Courses currently under development include: Introduction to Manufacturing Systems Engineering; Modeling and Simulating Methods: Information Management; Decision-making and Control in Manufacturing Systems; Interfacing Methods; and Processing and Handling of Materials.

The option will also draw on a large base of established and emerging courses that are part of the existing disciplinary patterns across the College of Engineering. Further information is available in 207 Engineering Hall.

Thesis

A senior of high standing in any curriculum, with the approval of the department concerned, may substitute for one or more technical courses an investigation of a special subject and write a thesis.

Curriculum Modification

Students interested in modifying their curriculum may do so by checking with their department and advisers to determine the petition procedures for making curriculum modifications.

Special Curricula

Students of high scholastic achievement, with exceptional aptitudes and interests in special fields of engineering and their application, may be permitted to vary the course content of the standard curriculum in order to emphasize some phases not included or not encompassed by the usual course substitution and selection of electives. These unwritten curricula, however,

include all the fundamental courses of the standard curricula, the variations being made mainly in the so-called applicatory portions of the standard curricula of the college. The program of study of each student permitted to take such a special curriculum must be approved by a committee of the college, in consultation with the head of the department in which the student is registered, and with a faculty member of the college. This faculty member automatically becomes the student's adviser in charge of registration and other matters pertaining to the approved program.

Advanced ROTC Training Combined with Engineering

Students in the College of Engineering may elect to participate in the Reserve Officers' Training Program and earn a commission in the United States Army Reserve, United States Air Force Reserve, or the United States Naval Reserve. A commission is awarded simultaneously with the awarding of the Bachelor of Science degree in an engineering field. Participation in these programs is limited to students who apply and are selected by the Army, Air Force, or Navy units at the University. A monthly stipend is paid to those selected for advanced military training.

These programs require from one to three summer camps or cruises as well as the earning of a specified number of credits in advanced military courses. Credits earned appear in all academic averages computed by the College of Engineering. Basic military (first 4 hours of freshman or sophomore course work) does not count toward graduation. Certain curricula may use only a limited number of these credits in fulfillment of graduation requirements. Students should plan on taking nine semesters to obtain both a bachelor's degree in engineering and a commission in the ROTC program. For further information on these programs, write directly to the Professor of Military Science, the Professor of Aerospace Studies, or the Professor of Naval Science. (See pages 81 through 86.)

Exchange Scholarships at Munich and Darmstadt, West Germany

The College of Engineering has exchange scholarships with the Technical University in Munich, West Germany, and the Technische Hochschule Darmstadt in Darmstadt, West Germany. Under the terms of the scholarship, two University of Illinois students are given tuition scholarships at the Technical University in Munich and two are given scholarships at the Technische Hochschule Darmstadt. Stipends to cover living expenses for the year are included in the Munich program. Students selected by the Technical University in Munich and by the Technische Hochschule Darmstadt receive tuition scholarships at the University of Illinois at Urbana-Champaign. Equivalent cash stipends are awarded to the Munich students. Students are responsible for their own transportation expenses.

Students eligible for study at the Technical University in Munich must be enrolled in one of the following curricula: civil engineering, electrical engineering, industrial engineering, mechanical engineering, metallurgical engineering, nuclear engineering, or engineering physics. Students eligible for study at the Technische Hochschule Darmstadt must be enrolled in one of the following curricula: civil engineering, chemical engineering, computer science, electrical engineering, industrial engineering, mechanical engineering, or physics. It is expected that the full year's study abroad will be used toward graduation in the student's curriculum at Urbana-Champaign.

To participate in the programs, a student must have completed Ger. 104 or the equivalent (additional courses in German are recommended) and have finished his or her sophomore studies in engineering at the Urbana-Champaign campus. In addition, the student must be an outstanding scholar who will be an excellent representative of the University of Illinois and must be a U.S. citizen.

The programs are under the general administration of the Engineering College Honors Council, although a recipient need not be an honors student if he or she has an outstanding undergraduate record.

On-the-Job Training in Foreign Countries

IAESTE (International Association for the Exchange of Students for Technical Experience) is a private, nonprofit organization which enables students of engineering, architecture, and the sciences to obtain on-the-job training in foreign countries. Any student, undergraduate or

graduate, who is enrolled in good standing at the University and who has completed at least the sophomore year of study may apply. Generally, the maintenance allowance is adequate to cover living expenses while in training but does not cover transportation costs. Further information about these opportunities may be obtained from the College of Engineering.

International Minor in Engineering

Many College of Engineering graduates will be involved in international activities during their professional careers. In anticipation of such involvement, the college offers an opportunity for students to complete an International Minor in any of the regular degree programs offered. More than 95 percent of the engineering students have had language training in high school, and this program allows them to continue their studies in related areas. The requirements for the completion of the International Minor are as follows. The student must:

— complete all degree requirements in the student's selected engineering discipline;
— complete foreign language studies in a language of a chosen geographical area (language level required will vary with the geographical area selected);
— complete a minimum of 21 hours of cultural or language studies related to the geographical area of concentration; nine hours must be other than language credit and include one or more 300-level courses;
— complete a period of involvement in a work period, a study period, an internship, or other form of involvement of at least eight weeks in the geographical area of concentration.

Students will be expected to select a specific geographical area for concentration which will be recognized in the designation of the minor such as International Minor — Latin American Studies. Course work selected for the minor must be approved by the Office of the Associate Dean, 207 Engineering Hall. A list of suggested courses is available from that office.

Through its association with the International Association for the Exchange of Students for Technical Experience (IAESTE), the college can assist students in gaining some work opportunities in other countries and also in participating in educational exchange programs at institutions in other countries that will assist the student in meeting the "period of involvement." Students having foreign language backgrounds prior to entering the college will normally be able to complete the program in four academic years. Those not having this background, or taking a year of study in a foreign institution, may take four-and-one-half to five years.

French Educational Exchange Program

Six College of Engineering students may participate in this French exchange program annually with two at each of these universities:

Institut National Polytechnique de Lorraine, Nancy
École Nationale des Ponts et Chaussées, Paris
Université de Technologie de Compiègne, Compiègne

Each student should be a junior and should have credit for at least the equivalent of Fr. 104. One or two semesters is available to each student with tuition and certain academic-related expenses provided.

Summer Exchange Program in China

To introduce College of Engineering students to Chinese culture and language, this program was developed with Nanjing University; the first exchange occurred in the summer of 1986. One or two other locations are being considered for future exchanges. This opportunity is mainly to learn about the people of China during a nine-week period, to study the language, and to work in a limited way with technology aspects. Two weeks are set aside for travel to interesting places. A five-credit course in Chinese is required prior to departing. Lodging, meals, and medical care are provided.

Other Study Abroad Exchange Programs

Many exchange programs with educational institutions throughout the world are available for engineering students on this campus. The College of Engineering works closely with the Study Abroad Office in developing programs of study in which course credits can be transferred to this campus. The College of Engineering is planning future programs with Japan (Konan and

Nihon Universities), Colombia (University of the Andes), Brazil (Pontificia Universidade), and Catolica do Rio de Janeiro, and other institutions in foreign countries. Further information about these programs may be obtained from the College of Engineering.

Elmendorf World Citizenship Travel Awards

An alumnus of the College of Engineering, Edward Elmendorf, established a fund to encourage engineering students to seek an understanding of the responsibilities of world citizenship. Engineering students traveling abroad as part of the educational programs sponsored by the College of Engineering are eligible for some financial aid. These funds do have certain requirements for qualification. Further information about these travel awards may be obtained from the College of Engineering.

HONORS PROGRAMS

Honors at Graduation

Honors awarded at graduation to superior students are designated on the diploma as Honors, High Honors, or Highest Honors. Students receive the designation Honors if they have a cumulative University of Illinois grade-point average of at least 4.5, and High Honors if they have at least a 4.8 grade-point average at graduation (A = 5.0). Highest Honors may be awarded to any student eligible for High Honors upon recommendation of his or her department. The criteria used by departments in selecting individuals for Highest Honors recognition include outstanding performance in course work and in supplementary activities of an academic and/or professional nature. Ordinarily, the basis for such a citation requires completion of an undergraduate thesis or a special project of superior quality.

Tau Beta Pi

Tau Beta Pi is a national engineering honor society which recognizes students, alumni, and engineers for outstanding academic achievements and exemplary character. The Alpha chapter at the University of Illinois at Urbana-Champaign was founded in 1897 and is the fifth oldest chapter of Tau Beta Pi. In addition to scholastic recognition, members participate in a wide range of activities which serve the chapter, the College of Engineering, and the community. The scholastic requirement for membership in Tau Beta Pi is that juniors must be in the upper eighth of their graduating class and seniors must be in the upper fifth of their graduating class.

Edmund J. James Scholars

The honors program in engineering is a part of the University James Scholar Program established to recognize and develop the talents of academically outstanding students. Engineering students in this program are known as James Scholars in Engineering. Each is assigned to an honors adviser, and receives special consideration in the selection of a course program to meet specific needs. Students may apply for the program during summer advanced enrollment or at the beginning of any semester.

New freshmen are eligible to enter the program if they meet two of the following three requirements: (1) rank in the top 10 percent of their high school graduating class; (2) have an ACT subscore in mathematics of 34 or better; (3) have an ACT composite score of 31 or better. To be eligible for admission and continuation in the James Scholar Program in engineering, all other students' cumulative grade-point averages shall be 4.5 or better for juniors and seniors and 4.3 or better for sophomores. Transfer students, with a superior transfer record, may be accepted into the program on request, and the completion of one normal semester in engineering with a grade-point average commensurate with the requirement for their class.

Good standing in the James Scholar Program requires participation in special honors work for a majority of the semesters in which a student is in residence.

Dean's List

See reference to the Dean's List on page 80.

ELECTIVES

Humanities and Social Sciences Electives

Eighteen hours of humanities and social sciences are required (in addition to rhetoric), including one sequence in the humanities and one in the social sciences. The two sequences cannot be in the same department. A sequence is defined as any combination of at least 6 hours of approved courses (see list below) taught by a single, nonengineering department, or any of the interdisciplinary sequences listed on page 186. Additional courses to complete the 18 hours must also be drawn from the lists of approved courses. All seminars (including 199), honors courses, thesis courses, and individual study are excluded except as specifically approved.

Students may obtain credit from different academic sources, i.e., residential instruction, CLEP, advanced placement tests, and transfer credits. Credit in any specific subject may be used toward degree requirements only once. Because of the variety of sources available for social science and humanities electives, students may receive duplicate credit in specific courses, such as American history. Students should be aware that such duplication can not be used toward degree requirements.

APPROVED COURSES IN THE HUMANITIES

African Studies — all courses
Arch. — 210, 310-316
Art, Hist. of — all 101 through 250
Art Education — 140
As. St. — all courses except 350
Cl. Civ. — all courses except 100, 101, and 382
Communications — 307, 308, 319
C. Lit. — all courses
Engl. — all courses except business and technical writing courses, rhetoric and composition courses, and Engl. 302, 381, 385
Foreign languages — all foreign languages except English, the student's native language(s), and closely related languages. All courses based on the results of the student's language placement examination with the following limitations: (1) the student may not be placed lower than the high school achievement level for credit (e.g., four years of high school language may allow credit for 103 and 104) and (2) students may earn proficiency credit for 103, 104, or higher by examination subject to the limits of rule (1).
Foreign literature in translation — all courses (check listings under appropriate language)
Hist. — all courses except 191-199 and 290 and 293
Human. — all courses except 382
Math. — 339
Music — 100-104, 130-135, 202, 203, 213, 214, 310-317, 327, 334, 335, 337
Phil. — all courses except 102, 202, 353, 354
Phycs. — 319
Relst. — all courses
S.T.S. — 201, 260
Sp. Com. — 177, 178, 210, 213, 254, 308, 315, 317, 319, 332, 350, 387
Theat. — 110, 263, 320

INTERDISCIPLINARY SEQUENCES IN THE HUMANITIES

Art, Hist. of 111 and any of Arch. 310-312
Art, Hist. of 112 and any of Arch. 313-316
Music 113 and 115, Hist. of Art 115

APPROVED COURSES IN THE SOCIAL SCIENCES

Ag. Ec. — 301, 318, 352-354
Anth. — all courses except 143, 240, 246, 300, 307, 318, 324, 337, 340-347, 351-356, 364, 365, 394
Comm. — all courses except 307, 308, 319
Econ. — all courses except 171-173, 374, 375
E.P.S. — 300-305, 310, 315, 385
Env. St. — 236
G.E. — 220
Geog. — all courses except 102, 185, 271-277, 304, 305, 308, 315, 370-378
Journ. — 114, 214, 217-220, 231, 241, 251
L.I.R. — all courses except 347, 360
L.A. — 214
L.A. St. — 295
Ling. — all courses except 191, 200, 201, 202, 300, 301, 305-307, 375, 376, 386, 388, 389
Min. E. — 302
Pol. S. — all courses except 270, 359, 366, 390
Psych. — 100, 103, 105, 158, 201, 205, 216, 224, 238, 239, 245, 248, 250, 261, 318, 323-325, 337, 348, 352-355, 357, 359, 360, 362, 365, 371, 373

S.T.S. — 202
Soc. — all courses except 185, 246, 332, 385-388
Sp. Comm. — 335
U.P. — 101, 260, 301, 302, 360

INTERDISCIPLINARY SEQUENCES IN THE SOCIAL SCIENCES

Econ. 101 and Min. E. 302
Econ. 101 and Env. St. 236

TECHNICAL ELECTIVES

Each engineering curriculum offers some elective opportunities which may be specified as technical or nontechnical. All technical elective courses must be selected in accordance with departmental requirements.

Technical electives generally include 200- and 300-level courses in engineering, mathematics, and the natural sciences.

Free Electives

These electives are selected at the prerogative of the student except as noted below.

Credit will not be allowed for courses of a remedial nature, such as mathematics below analytic geometry or basic military training. No more than 3 semester hours of physical education course work (basic level, i.e., activity courses) may be used as free electives nor may they be applied toward degree requirements. No more than 4 hours of religious foundations courses or 6 hours of advanced military science courses may be used as free electives.

Total transfer credit in required basic courses in mathematics (through integral calculus), physics, rhetoric, freshman chemistry, computer science, and engineering graphics may be used for free electives only if the credit covers topics beyond those in equivalent courses at the University of Illinois. Further restrictions on the acceptance of transfer credit for free electives may be imposed by the departments with the approval of the associate dean.

Credit-No Credit Option

The credit-no credit grade option is available for students wanting to explore areas of academic interest which they might otherwise avoid for fear of poor grades. All students considering this option are cautioned that many graduate and professional schools consider applicants whose transcripts bear a significant number of nongrade symbols less favorably than those whose transcripts contain none or very few. Conditions under which students may take courses on a credit-no credit basis are outlined in the booklet *Code on Undergraduate Affairs* distributed to all students.

Curricula

CURRICULUM IN AERONAUTICAL AND ASTRONAUTICAL ENGINEERING

For the degree of Bachelor of Science in Aeronautical and Astronautical Engineering

This curriculum provides a strong fundamental background in engineering and applied science with emphasis on aircraft and space flight engineering. The program is designed to give the student a basic engineering education applicable to related engineering disciplines including graduate study. The curriculum offers courses in related areas such as air pollution and energy sources. Up to 15 hours of free and technical electives can be used to provide a diversified program of study.

The curriculum requires 134 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	4	Chem. 102 — General Chemistry	4
Eng. 100 — Engineering Lecture	0	G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry I	5	Math. 132 — Calculus and Analytic Geometry II	3
Rhet. 105 — Principles of Composition	4	Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences elective[1]	3	Humanities or social sciences elective[1]	3
Total	16	Total	17

SECOND YEAR

Math. 225 — Introductory Matrix Theory	.2
Math. 242 — Calculus and Analytic Geometry III	.3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	.4
T.A.M. 156 — Analytical Mechanics	.5
Humanities or social sciences elective[1]	.3
Total	.17
C.S. 101 — Introduction to Computers for Applications to Engineering and Physical Science	.3
Math. 345 — Differential Equations and Orthogonal Functions	.3
M.E. 205 — Thermodynamics	.3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	.4
Humanities or social sciences elective[1]	.3
Total	.16

THIRD YEAR

A.A.E. 212 — Aerodynamics I	.4
A.A.E. 224 — Flight Structures I	.4
A.A.E. 254 — Aerospace Systems I	.4
Math. 343 — Advanced Calculus	.3
Elective[2]	.3
Total	.18
A.A.E. 213 — Aerodynamics II	.4
A.A.E. 225 — Flight Structures II	.4
A.A.E. 233 — Aircraft Propulsion	.3
A.A.E. 255 — Aerospace Systems II	.4
Humanities or social sciences elective[1]	.3
Total	.18

FOURTH YEAR

A.A.E. 260 — Aerospace Laboratory I	.2
A.A.E. 292 — Seminar	.1
Humanities or social sciences elective[1]	.3
Electives[2]	.10
Total	.16
A.A.E. 241 — Aerospace Design	.3
A.A.E. 261 — Aerospace Laboratory II	.2
Electives [2]	.11
Total	.16

[1] Of the 134 hours required for graduation, 18 must be in social sciences and humanities. These requirements are discussed on pages 186 and 187.

[2] Twenty-four hours of elective credits are required for graduation. These electives must contain at least 6 hours from list A below and 3 hours from list B. In addition, credit is required in at least one 300-level aeronautical and astronautical engineering course. Six hours of electives are free electives. The remaining are technical electives.

A: E.E. 220, 229, 244, 260, 340; Phycs. 331, 333.

B: Met. E. 334; Phycs. 383.

CURRICULUM IN AGRICULTURAL ENGINEERING

For the degree of Bachelor of Science in Agricultural Engineering

Agricultural engineering is the application of engineering principles to solutions of problems in agriculture. Efficient agricultural production depends on sophisticated systems of men, equipment, processes, and natural resources. Agricultural engineers are involved in the design of systems which include mechanization of animal and crop production, soil moisture control, crop and food processing, materials handling, and structures for storage and shelter. Important design constraints are economics, conservation of materials and energy, safety, and environmental quality. Graduates are employed by industry and government in research, education, manufacturing, and applications. A five-year, dual degree in both engineering and agriculture is available (see pages 108, 111, and 112). By choice of electives, a student may direct his or her program toward specialization in power and machinery, soil and water, structures and environment, electric power and processing, or food engineering. Individual programs are checked by departmental advisers to insure that ABET requirements are met for any chosen specialization.

Specialization in Power and Machinery, Soil and Water, Structures and Environment, or Electric Power and Processing

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	.4
Eng. 100 — Engineering Lecture	.0
G.E. 103 — Engineering Graphics	.3
G.E. 193 — Special Problem	.0
Math. 120 — Calculus and Analytic Geometry I	.5
Rhet. 105 — Principles of Composition	.4
Total	.16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	.4
Math. 132 — Calculus and Analytic Geometry II	.3
Math. 225 — Introductory Matrix Theory	.2
Phycs. 106 — General Physics (Mechanics)	.4
Biological and agricultural sciences elective[1]	.3-4
Total	.16-17

SECOND YEAR

Ag. E. 126 — Engineering in Agriculture	4
Math. 242 — Calculus of Several Variables	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3
T.A.M. 150 or T.A.M. 152 — Statics	2 or 3
Total	16-17

Ag. E. 127 — Production Systems in Agriculture	3
Math. 345 — Differential Equations and Orthogonal Functions	3
Econ. 101 — Elements of Economics[2]	4
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 212 — Engineering Mechanics, II (Dynamics)	3
Total	17

THIRD YEAR

Agricultural engineering technical elective, group I[3]	3
E.E. 220 or E.E. 260 — Circuit Analysis	3
T.A.M. 221 — Elementary Mechanics of Solids	3
Humanities or social sciences elective[2]	4
Biological and agricultural sciences elective[1]	4-3
Total	17-16

Agricultural engineering technical elective, group I[3]	3
Ag. E. 298 — Undergraduate Seminar	1
C.E. 261 — Introduction to Structural Engineering or M.E. 220 — Mechanics of Machinery	3
M.E. 209 — Thermodynamics and Heat Transfer	3
T.A.M. 235 — Fluid Mechanics	4
Total	14

FOURTH YEAR

Agricultural engineering technical elective, group II[3]	3
Humanities or social science electives[2]	6
Technical elective[3]	4-3
Biological and agricultural sciences elective[1]	3
Total	16-15

Agricultural engineering technical elective, group II[3]	3
Ag. E. 299 — Undergraduate Thesis	2
Biological and agricultural sciences elective[1]	3
Humanities or social sciences electives[2]	4
Free elective	3
Total	15

Total hours for degree **128**

[1] Students must complete 12 to 15 hours from biological and agricultural sciences electives.
[2] Students must complete Econ. 101 and 14 additional hours of humanities and social sciences from approved college list.
[3] Each student must have 18 to 20 hours of technical electives, selected from the following: (1) C.E. 261, or M.E. 220; (2) two courses from agricultural engineering technical electives, group I, and two courses from group II; and (3) additional courses from other technical electives.

Biological and Agricultural Sciences Electives

The 12 to 15 hours of biological and agricultural sciences are to be chosen as follows:

At least eight hours from:
Agron. 121, 322, 326
An. S. 307
Biol. 100, 101, 104
Entom. 120
Geol. 101, 250
Mcbio. 100
Pl. Bio. 100
Soils 101, 308

The remainder from:
Ag. Ec. 220, 324, 325
Ag. M. 200, 201

Specialization in Food Engineering

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	4
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics	3
G.E. 193 — Special Problems	0
Math. 120 — Calculus and Analytic Geometry I	5
Rhet. 105 — Principles of Composition	4
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	4
Math. 132 — Calculus and Analytic Geometry II	3
Math. 225 — Introductory Matrix Theory	2
Phycs. 106 — General Physics (Mechanics)	4
F.S. 101 — Food in Modern Society or free elective	3
Total	16

SECOND YEAR

Mcbio. 100 — Introductory Microbiology 3
Mcbio. 101 — Introductory Experimental Microbiology 2
Math. 242 — Calculus of Several Variables . . .3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism). 4
Humanities or social sciences elective[1] 2
Chem. 131 — Elementary Organic Chemistry 3
Total 17

Math. 345 — Differential Equations and Orthagonal Functions 3
Humanities or social sciences elective[1] 2
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics) 4
T.A.M. 154 — Analytical Mechanics 4
F.S. 214 — Survey of Food Chemistry or free elective 3
Total 16

THIRD YEAR

Ch.E. 261 — Introduction to Chemical Engineering. 3
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science 3
T.A.M. 221 — Elementary Mechanics of Solids 3
E.E. 220 — Basic Electrical Engineering or E.E. 260 — Networks I 3
Humanities or social sciences elective[1] 4
Total 16

Ch.E. 370 — Chemical Engineering Thermodynamics 3
Ag. E. 298 — Undergraduate Seminar 1
M.E. 220 — Mechanics of Machinery. 3
Mcbio. 311 — Food and Industrial Microbiology 3
Mcbio. 312 — Techniques of Applied Microbiology 2
Humanities or social sciences elective[1] 4
Total 16

FOURTH YEAR

Agricultural engineering technical elective 3
Humanities or social sciences elective[1] 2
F.S. 301 — Food Processing I 5
Ch.E. 371 — Fluid Mechanics and Heat Transfer 4
Ag. E. 311 — Instrumentation and Measurements 3
Total 17
Total hours for degree 132

Agricultural engineering technical elective, group II. 3
Econ. 101 — Elements of Economics 4
F.S. 302 — Food Processing II. 5
Ch.E. 373 — Mass Transfer Operations 4
Ag. E. 299 — Undergraduate Thesis 2
Total 18

[1] Students must complete Econ. 101 and 14 additional hours of humanities and social sciences from approved college list.

Agricultural Engineering Technical Electives

GROUP I

Ag. E. 236
Ag. E. 256
Ag. E. 287
Ag. E. 311
Ag. E. 340

GROUP II

Ag. E. 277
Ag. E. 336
Ag. E. 346
Ag. E. 356
Ag. E. 357
Ag. E. 387

Other Technical Electives

A student may choose any course which satisfies the college requirements for technical electives.

Students desiring to specialize in a specific area of agricultural engineering may use the following lists as a guide in choosing their technical electives.

POWER AND MACHINERY

Ag. E. 236
Ag. E. 311
Ag. E. 336
Ag. E. 340
Ag. E. 346
M.E. 231
M.E. 270

ELECTRIC POWER AND PROCESSING

Ag. E. 236
Ag. E. 287
Ag. E. 311
Ag. E. 336
Ag. E. 340
Ag. E. 387
Chem. 323
M.E. 213
M.E. 307

SOIL AND WATER

Ag. E. 256
Ag. E. 277
Ag. E. 287
Ag. E. 311
Ag. E. 340
Ag. E. 356
Ag. E. 357
C.E. 255
C.E. 264
C.E. 280

STRUCTURES AND ENVIRONMENT

Ag. E. 277
Ag. E. 287
Ag. E. 311
Ag. E. 340
Ag. E. 387
C.E. 214
C.E. 262
C.E. 263
C.E. 264

CURRICULUM IN CERAMIC ENGINEERING

For the degree of Bachelor of Science in Ceramic Engineering

Ceramic Engineering is one of the principal fields dealing with materials — their properties, behavior, and applications. Some of the ceramic products originate with naturally occurring minerals, while others require the synthesis of specific compounds in order to obtain the desired properties. Major industries such as electronics, steel, glass, aerospace, and construction depend heavily upon ceramic materials and their unique properties, especially at high temperatures. The ceramic engineering curriculum provides a strong background in engineering and applied science with emphasis on understanding material properties and processes. By choice of electives, a student may direct his or her program toward greater emphasis on electronics, bioengineering, glass, or high-temperature materials.

The curriculum requires 132 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	4	Chem. 102 — General Chemistry	4
Eng. 100 — Engineering Lecture	0	Math. 132 — Calculus and Analytic Geometry II	3
G.E. 103 — Engineering Graphics I	3	Math. 225 — Introductory Matrix Theory	2
Math. 120 — Calculus and Analytic Geometry I	5	Phycs. 106 — General Physics (Mechanics)	4
Rhet. 105 — Principles of Composition	4	Humanities or social sciences elective[1]	3
Total	16	Total	16
SECOND YEAR			
Cer. E. 201 — Ceramic Crystal Chemistry	3	Cer. E. 202 — Ceramic Materials and Processes	3
Math. 242 — Calculus and Analytic Geometry III	3	Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3	T.A.M. 154 — Analytical Mechanics (Statics and Dynamics)	4
Humanities or social sciences elective[1]	3	Humanities or social sciences elective[1]	3
Total	16	Total	17
THIRD YEAR			
Cer. E. 205 — Phase Equilibria in Ceramic Systems	3	Cer. E. 208 — Thermal Processing	3
Cer. E. 314 — Chemistry and Technology of Glass	3	Cer. E. 216 — Rate Processes in Ceramic Engineering	3
Technical elective	3	Ceramic engineering elective[2]	3
Cer. E. 245 — Physical Chemistry for Engineers or equivalent[2]	3	Technical elective	3
T.A.M. 221 — Elementary Mechanics of Solids	3	Chemistry or physics elective[2]	3
Humanities or social sciences elective[1]	3	Humanities or social sciences elective[1]	3
Total	18	Total	18
FOURTH YEAR			
E.E. 220 — Basic Electrical Engineering	3	Electrical applications elective[2]	3
Humanities or social sciences elective[1]	3	Free electives	6
Ceramic engineering electives[2]	6	Ceramic engineering elective[2]	3
Cer. E. 307 — Thermal and Mechanical Properties of Ceramic Materials	3	Technical elective	4
Total	15	Total	16

[1] Consult the college list of approved courses beginning on page 186.
[2] Consult departmental adviser for list of approved courses.

CURRICULUM IN CHEMICAL ENGINEERING

For the degree of Bachelor of Science in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences. (See page 285.)

CURRICULUM IN CIVIL ENGINEERING

For the degree of Bachelor of Science in Civil Engineering

The civil engineering curriculum provides a systematic, integrated foundation in the physical and engineering sciences and mathematics, thereby permitting the rational development of engineering methods as applied to the planning, design, and construction of bridges, buildings, dams and other hydraulic structures, transportation facilities, environmental engineering systems and facilities, surveying and mapping systems, and other civil engineering projects. The flexibility of the curriculum permits a student to pursue either a broad program representing most of the principal areas of civil engineering or a more specialized program in one or more technical specialty areas.

The curriculum requires 129 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	4	Chem. 102 — General Chemistry	4
G.E. 103 — Engineering Graphics	3	Math. 132 — Calculus and Analytic Geometry II	3
Math. 120 — Calculus and Analytic Geometry I	5	Rhet. 105 — Principles of Composition	4
Econ. 101 — Elements of Economics	4	Phycs. 106 — General Physics (Mechanics)	4
Eng. 100 — Engineering Lecture	0		
Total	16	Total	15
SECOND YEAR			
C.E. 195 — Introduction to Civil Engineering	1	C.E. 292 — Design and Planning of Civil Engineering Systems	3
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3	C.E. 293 — Stochastic Concepts in Civil Engineering	3
Math. 225 — Introductory Matrix Theory	2	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Math. 242 — Calculus and Analytic Geometry III	3	T.A.M. 212 — Analytical Mechanics (Dynamics)	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	T.A.M. 221 — Elementary Mechanics of Solids	3
T.A.M. 152 — Analytical Mechanics (Statics)	3		
Total	16	Total	16
THIRD YEAR			
T.A.M. 235 — Fluid Mechanics	4	Introductory technical courses[1]	9
Introductory technical courses[1]	6	Technical elective[4]	3
Humanities or social sciences elective[2]	3	Humanities or social sciences electives[2]	5
Advanced mathematics[3]	3		
Total	16	Total	17
FOURTH YEAR			
Introductory technical courses[1]	3	Technical electives[4]	9
Technical electives[4]	9	Humanities and social sciences elective[2]	3
Humanities or social sciences elective[2]	3	Free elective	3
Free elective	3	C.E. 295 — Professional Practice	0
Total	18	Total	15

[1] Each student must take at least six of the nine introductory courses in the several technical specialty areas in civil engineering as shown in Introductory Technical Courses, below.

[2] Each student is required to select 18 hours from the college-approved list of humanities and social sciences, including Econ. 101. (See pages 186 and 187.)

[3] Each student must select at least one course (3 hours) of advanced mathematics, at the 300 level as approved by the department.

[4] Twenty-one hours (20 hours if C.E. 201 is selected as an introductory technical course) of technical courses must be selected, with the approval of the department, to define a coherent program.

Introductory Technical Courses

	HOURS
C.E. 201 — Engineering Surveying	4
C.E. 216 — Construction Engineering	3

C.E. 220 — Materials for Transportation Facilities, or 3
C.E. 230 — Introduction to Transportation Engineering 3
C.E. 241 — Water Quality and Water Pollution 3
C.E. 255 — Introduction to Hydrosystems Engineering 3
C.E. 261 — Fundamentals of Structural Engineering 3
C.E. 280 — Foundation Engineering 3
Geol. 250 — Geology for Engineers 3
T.A.M. 224 — Behavior of Materials 3

Technical Specialty Areas

At least 39 semester hours of introductory technical courses and technical electives must be selected, with departmental consultation and approval, to develop a coherent program in one or more of the following technical specialty areas:

Construction Engineering
Environmental Engineering
Geotechnical Engineering
Hydraulic Engineering
Photogrammetric and Geodetic Engineering
Structural Engineering
Transportation Engineering

CURRICULUM IN COMPUTER ENGINEERING

For the degree of Bachelor of Science in Computer Engineering

The program in computer engineering is administered by and is part of the offerings of the Department of Electrical Engineering.

The following suggested curriculum indicates one way in which the student may satisfy in eight semesters the requirements for the degree of Bachelor of Science in Computer Engineering.

To qualify for registration in the electrical engineering courses specified in the first semester of the junior year of the curriculum in computer engineering, a student must have a combined grade-point average of 3.25 (A = 5.0) in the mathematics, physics, computer science, and electrical engineering courses which are required in the freshman and sophomore years of the curriculum.

The curriculum requires 128 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	4
Eng. 100 — Engineering Lecture	0
Math. 120 — Calculus and Analytic Geometry I	5
Rhet. 105 — Principles of Composition	4
Humanities or social sciences elective[1]	3
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	4
Math. 132 — Calculus and Analytic Geometry II	3
Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences elective[1]	5
Total	16

SECOND YEAR	
C.S. 121 — Introduction to Computer Science[2]	4
Math. 242 — Calculus of Several Variables	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
Electives[1]	5
Total	16

E.E. 244 — Electrical Engineeering Laboratory I	2
E.E. 260 — Introduction to Circuit Analysis	3
E.E. 290 — Introduction to Computer Engineering	3
Math. 340 — Differential Equations with Linear Algebra, or Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Electives[1]	1
Total	16

THIRD YEAR	
E.E. 249 — Digital Systems Laboratory	2
E.E. 291 — On-Line Computing or C.S. 221 — Machine Level Programming	3
E.E. 340 — Solid State Electronic Devices	3
E.E. 319 — Applied Modern Algebra	3
E.E. 309 — Circuit, Signal, and System Analysis	4
Elective[1]	1
Total	16

E.E. 229 — Introduction to Electro-magnetic Fields	3
Math. 361 — Introduction to Probability Theory I or E.E. 313 — Probabilistic Methods of Signal and System Analysis	3
E.E./C.S./Math. 391 — Switching Theory	3
E.E. 342 — Electronic Circuits	3
Electives[1]	4
Total	16

FOURTH YEAR

Electives[1]	16	Electives[1]	16

[1] Fifty-one hours of electives to be selected by the student in consultation with his or her adviser, apportioned as follows:
— Twenty-seven hours of technical electives as follows:
Eighteen hours (not including other requirements) must be chosen from a departmentally approved list of technical courses for the computer engineering program. Nine hours may be chosen from other technical areas.
— Eighteen hours of humanities and social sciences from the college-approved list. (See page 186.)
— Six hours of free electives, to be selected in accordance with the regulations of the college.
[2] The alternate for C.S. 121 is C.S. 101 and 10, instead of 9, hours of electives from other technical areas.

CURRICULUM IN COMPUTER SCIENCE

For the degree of Bachelor of Science in Computer Science

This curriculum is offered by the Department of Computer Science for students seeking a broad and deep knowledge of the theory, design, and application of digital computers and information processing techinques. The first two years are spent on basic work in mathematics, physics, and an introduction to the fundamental areas of computer science — computing, programming, the organization of digital machines, hardware, numerical analysis, and theory of computation. The third year completes the work in basic computer science and requires electives to broaden the background of the student. During the fourth year, the student is encouraged to deepen his or her understanding of topics in which he or she has particular interest and ability.

To qualify for registration in the computer science courses specified in the first semester of the junior year, a student must have a combined grade-point average of 3.25 (A = 5.0) in the mathematics, physics, and computer science courses which are required in the freshman and sophomore years.

The curriculum requires 122 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	4	Chem. 102 — General Chemistry	4
Eng. 100 — Engineering Lecture	0	Math. 132 — Calculus and Analytic Geometry II	3
Math. 120 — Calculus and Analytic Geometry I	5	Phycs. 106 — General Physics (Mechanics)	4
Electives	6	Rhet. 105 — Principles of Composition	4
Total	15	Total	15
SECOND YEAR			
C.S. 121 — Introduction to Computer Programming	4	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Math. 242 — Calculus and Analytic Geometry III	3	C.S. 264 — Introduction to the Structure and Logic of Digital Computers[1]	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	C.S. 221 — Machine-Level Programming	3
Electives	5	Electives	6
Total	16	Total	16
THIRD YEAR			
C.S. 273 — Introduction to Theory of Computation	3	C.S. 257 — Introduction to Numerical Analysis	3
C.S. 225 — Data Structures	3	C.S. 281 — Introduction to Computer Circuits[2]	3
Math. 225 — Introductory Matrix Theory	2	Math. 361 — Introduction to Probability Theory I	3
Electives	7	Electives	6
Total	15	Total	15

FOURTH YEAR			
Electives	15	Electives	15

[1] It is strongly recommended that C.S. 265 — Logic Design Laboratory with Integrated Circuits, 2 hours, be taken concurrently with (or following) C.S. 264.
[2] It is strongly recommended that C.S. 282 — Digital Circuits Laboratory, 1 hour, be taken concurrently with (or following) C.S. 281.

Electives

The computer science curriculum contains 60 semester hours of electives. These electives are chosen by the student according to the following requirements:

— Eighteen hours must be selected in the humanities and social sciences areas as specified by the college requirements on pages 186 through 187.

— At least one course must be selected from each of the following five groups:

GROUP I	GROUP II	GROUP III	GROUP IV	GROUP V
Math. 341	C.S. 313	C.S. 311	C.S. 331	C.S. 335
Math. 345	C.S. 373	C.S. 318	C.S. 333	C.S. 381
C.S. 355	C.S. 375	C.S. 323	C.S. 337	C.S. 384
C.S. 358	C.S. 383	C.S. 325	C.S. 338	C.S. 385
C.S. 359		C.S. 327	C.S. 339	C.S. 386
			C.S. 363	C.S. 389
			C.S. 364	
			C.S. 391	

— Twelve semester hours must consist of a goal-directed sequence of courses directed toward a study of a specific problem area related to computer use. This sequence must be approved by the student's adviser.

— A total of 15 semester hours is designated as free electives.

CURRICULUM IN ELECTRICAL ENGINEERING

For the degree of Bachelor of Science in Electrical Engineering

The following suggested curriculum indicates one way in which the student may satisfy in eight semesters the requirements for the degree of Bachelor of Science in Electrical Engineering.

To qualify for registration in the electrical engineering courses specified in the first semester of the junior year of the curriculum in electrical engineering, a student must have a combined grade-point average of 3.25 (A = 5.0) in the mathematics, physics, computer science, and electrical engineering courses which are required in the freshman and sophomore years of the curriculum.

The curriculum requires 128 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	4	Chem. 102 — General Chemistry	4
Eng. 100 — Engineering Lecture	0	Math. 132 — Calculus and Analytic Geometry II	3
Math. 120 — Calculus and Analytic Geometry I	5	Phycs. 106 — General Physics (Mechanics)	4
Rhet. 105 — Principles of Composition	4	Humanities or social sciences elective[1]	5
Humanities or social sciences elective[1]	3	Total	16
Total	16		

SECOND YEAR			
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3	E.E. 260 — Introduction to Circuit Analysis	3
Math. 242 — Calculus of Several Variables	3	E.E. 244 — Electrical Engineering Laboratory I	2
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	E.E. 290 — Introduction to Computer Engineering	3
Electives[1]	6	Math. 345 — Differential Equations and Orthogonal Functions	3
Total	16	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
		Elective[1]	1
		Total	16

THIRD YEAR

E.E. 229 — Introduction to Electromagnetic Fields	3
E.E. 340 — Solid State Electronic Devices	3
E.E. 309 — Circuit, Signal, and System Analysis	4
Electives[1]	6
Total	16
E.E. 245 — Electrical Engineering Laboratory II	2
E.E. 342 — Electronic Circuits	3
E.E. 350 — Lines, Fields, and Waves	3
Electives[1]	8
Total	16

FOURTH YEAR

Electives[1]	16
Electives[1]	16

[1] Sixty-one hours of electives are to be selected by the student, in consultation with his or her adviser, apportioned as follows:

— Thirty-seven hours of technical electives as follows:

Sixteen semester hours of electrical engineering courses to be selected from a departmentally approved list. The courses selected to meet the preceding requirement must include at least two from a departmentally approved list of advanced electrical engineering laboratory courses and at least one of the following three courses: E.E. 313, 330, or 344.

Twenty-one semester hours of technical electives to be selected from a departmentally approved list, at least 12 of which must be in areas outside electrical engineering and not more than nine hours may be 100- or 200-level courses. The courses used to satisfy this requirement must include one course from a list of departmentally approved non-E.E. science electives and one course from a departmentally approved list of 300-level mathematics courses.

— Eighteen hours of humanities and social sciences from the college-approved list. (See page 186.)

— Six semester hours of free electives, to be selected in accordance with the regulations of the college.

CURRICULUM IN ENGINEERING MECHANICS

For the degree of Bachelor of Science in Engineering Mechanics

This curriculum, offered by the Department of Theoretical and Applied Mechanics, is intended primarily for students interested in research and development, a general area in engineering employing many engineers in industry, private laboratories, and government organizations. Because of the diversity of modern research and development problems — especially in newly emerging areas such as energy engineering, ocean engineering, space technology, and computer-based design — the curriculum is organized around a core that emphasizes a broad education covering, in depth, the basic areas of science and engineering mechanics which are fundamental to all branches of engineering. In addition, five secondary field options — engineering science, experimental mechanics, computer applications, materials engineering (plastics, metals, and other engineering structural materials), and biomechanics — allow the student to concentrate on areas of special interest. Any student with special interests and/or educational goals may modify the curriculum by petition with the approval of the department and the College of Engineering. The program also provides excellent preparation for graduate study in many different engineering disciplines.

The curriculum requires 128 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 — General Chemistry	4	Chem. 102 — General Chemistry	4
Eng. 100 — Engineering Lecture	0	Math. 132 — Calculus and Analytic Geometry II	3
G.E. 103 — Engineering Graphics I	3	Phycs. 106 — General Physics (Mechanics)	4
Math. 120 — Calculus and Analytic Geometry I	5	Math. 225 — Introductory Matrix Theory	2
Rhet. 105 — Principles of Composition	4	Humanities or social sciences elective[1]	3
Total	16	Total	16
SECOND YEAR			
Math. 242 — Calculus of Several Variables	3	Math. 345 or 341 — Differential Equations	3
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	T.A.M. 212 — Engineering Mechanics II (Dynamics)	3
T.A.M. 152 — Engineering Mechanics I (Statics)	3	T.A.M. 221 — Elementary Mechanics of Solids	3
Humanities or social sciences elective[1]	3	Humanities or social sciences elective[1]	3
Total	16	Total	16

THIRD YEAR

E.E. 260 — Introduction to Circuit Analysis. 3
T.A.M. 224 — Behavior of Materials. 4
T.A.M. 235 — Fluid Mechanics 4
Math. 343 or 247 — Advanced Calculus 3
Humanities or social sciences elective[1] 3
Total 17

M.E. 205 — Thermodynamics. 3
Secondary field elective. 3
Secondary field elective. . . . . .2 or 3
Technical elective[2] 3
Humanities or social sciences elective[1] 3
Free elective. 0-1
Total 15

FOURTH YEAR

T.A.M. 293 — Research and Design Project . .2
T.A.M. 392 — Design and Analysis in Engineering Practice. 3
T.A.M. 351 — Fundamental Concepts of Deformable Body Mechanics 3
Secondary field elective. 3
Humanities or social sciences elective[1] 3
Free elective. 2
Total 16

T.A.M. 294 — Research and Design Project . .4
Secondary field elective. 3
Secondary field elective. 3
Technical elective[2] 3
Free elective. 3
Total 16

[1] The list of courses approved by the College of Engineering should be consulted.
[2] The list of technical courses approved by the College of Engineering should be consulted.

Secondary Field Options

The secondary field options consist of 14 or 15 hours of engineering and engineering-related courses, as indicated below for the six options. In the junior year, each student prepares a program of study in consultation with a faculty adviser. An appropriate amount of design and engineering science must be included in each program. Substitutions for specific courses in an option can be made in order to meet the particular needs of a student. The program of study is then submitted to the chief adviser of the department for approval.

EXPERIMENTAL MECHANICS

M.E. 261 — Instrumentation or Chem. 323 — Applied Electronics. . . . .3 or 4
T.A.M. 326 — Experimental Stress Analysis . .3
T.A.M. (any 300-level). 6
Technical elective[1] . . . . . .2 or 1

COMPUTER APPLICATIONS

E.E. (any 300-level) or M.E. 261 or Chem. 323 3
C.S. 257 — Introduction to Numerical Analysis. 3
C.S. 358 — Numerical Analysis or C.S. 360 — Minicomputers 3
C.S. (any 300-level) or M.E. 345 — Finite Element Analysis 3
T.A.M. (any 300-level). 3

MATERIALS ENGINEERING (Metals)

E.E. (any 300-level) or M.E. 261 or Chem. 323 3
T.A.M. 324 — Flow and Fracture of Solids . . .3
Met. E. 301, 316, or 387 — Metallurgy 3
M.E. 393 or T.A.M. 393 — Polymers 3
T.A.M. (any 300-level). 3

MATERIALS ENGINEERING (Polymers and Composites)

E.E. (any 300-level) or M.E. 261 or Chem. 323 3
T.A.M. 324 — Flow and Fracture of Solids . . .3
T.A.M. 328 — Mechanical Behavior of Composite Materials. 3
Met. E. 375 — Introduction to Polymers 3
M.E. 393 or T.A.M. 393 — Polymers 3
Chem. 131 — Elementary Organic Chemistry . . . . . .3[2]
Met. E. 378 — Polymer Characterization Laboratory . . . . . .3[2]
Additional course from polymer science and engineering option list. . . . . .3[2]

BIOMECHANICS

E.E. (any 300-level) or M.E. 261 or Chem. 323 3
Chem. 131 — Elementary Organic Chemistry 3
Physl. 301 — General Physiology. 3
Physl. 303 — General Physiology Laboratory 2
Additional college bioengineering biology core courses 3
Other college bioengineering biology core courses. . . . . 1 or 2[3]
Bioengineering or related courses . . . . . 0-4[3]

ENGINEERING SCIENCE

E.E. (any 300-level) or M.E. 261 or Chem. 323 3
T.A.M. (any 300-level). 8
Math. (any 300-level) 3

[1] The list of technical courses approved by the College of Engineering should be consulted.
[2] Required for the polymer science and engineering option in engineering, but not for the materials engineering (polymers and composites) option in engineering mechanics.
[3] Required for the bioengineering option in engineering, but not for the biomechanics option in engineering mechanics.

CURRICULUM IN ENGINEERING PHYSICS*

For the degree of Bachelor of Science in Engineering Physics

This curriculum provides broad, thorough training in fundamental physics and mathematics to prepare students for graduate study in physics or related fields and for research and development positions in industrial or government laboratories. For the first two years, the curriculum follows essentially the common engineering program. In the last two years, the emphasis is on advanced courses in physics and mathematics, but there is a liberal allowance of electives.

When registering for advanced undergraduate courses in physics, students continuing in or transferring to this curriculum must have a grade-point average of 3.5 (A = 5.0) in all University subjects exclusive of military science, physical education, and band, and a combined grade-point average of 3.5 in all courses in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they have transferred and must maintain such status at the University.

The illustrative program that follows shows the requirements to be completed in four years. However, many students take these courses in a different order. Students with adequate high school mathematics prerequisites should begin Phycs. 106 the first semester. The program includes 39 hours of electives, 18 of which must be chosen from the college approved list of humanities and social sciences electives (see page 186). The remaining 21 hours include 6 hours of free electives and 16 hours of technical or nontechnical electives, of which at least 6 hours must be nontechnical and at least 4 technical.

The curriculum requires 128 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry[1]	4
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
G.E. 193 — Special Problems	0
Math. 120 — Calculus and Analytic Geometry I	5
Rhet. 105 — Principles of Composition or Rhet. 108 — Forms of Composition[2]	4
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry[1]	4
Humanities or social sciences electives	3-6
Math. 132 — Calculus and Analytic Geometry II	3
Phycs. 106 — General Physics (Mechanics)	4
Total	14-17

SECOND YEAR

Math. 242 — Calculus and Analytical Geometry III	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
Phycs. 210 — Special Relativity	2
Humanities or social sciences elective[4]	3-6
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3
Total	14-17

Math. 345 — Differential Equations and Orthogonal Functions[3]	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Phycs. 331 — Intermediate Electricity and Mechanics	5
Humanities or social sciences electives[4]	3-6
Total	15-18

THIRD YEAR

Math. 343 — Advanced Calculus	3
Phycs. 332 — Classical Mechanics	4
Phycs. 371 — Light	4
Humanities or social sciences electives[4]	3-6
Total	14-17

Phycs. 333 — Electromagnetic Fields	5
Phycs. 343 — Electronic Circuits I[6]	5
Phycs. 386 — Atomic Physics and Quantum Mechanics I	4
Electives[4, 5]	2-4
Total	16-18

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* See also programs in LAS physics (see page 287) and LAS science and letters concentration in physics (see page 274).

FOURTH YEAR

Phycs. 344 — Electronic Circuits II or Phycs. 303 — Modern Experimental Physics	5
Phycs. 361 — Thermodynamics and Statistical Mechanics	4
Phycs. 387 — Atomic Physics and Quantum Mechanics II	4
Electives[4]	3-6
Total	16-19

Electives[4]	14-18

[1] Chem. 107, 109, and 108, 110 may be substituted for Chem. 101 and 102 by students who desire a more rigorous chemistry sequence.
[2] Sp. Com. 111 and 112 fulfill the graduation requirement in rhetoric. The extra 2 hours may be applied to nontechnical electives or to free electives.
[3] Math. 341 and 342 may replace Math. 345. Extra hours count as technical electives.
[4] See paragraph above on elective distribution.
[5] Advanced military courses, foreign languages, and any 100- to 300-level nontechnical course, including some biology, may be used as nontechnical electives. Physical education, band, and skill courses may be used only as free electives.
[6] Students wishing to emphasize electrical engineering may take E.E. 342 or other suitable electrical engineering sequence.

Applied Physics Options

In consultation with his or her adviser, a student may elect an applied physics option. These options involve subjects related to physics that are of an applied nature and allow the student to focus on a specialized area. A student must register for an option in the Physics Undergraduate Record Office, where a list of approved courses is available. Planning for the option should begin during the sophomore year. Courses in these options may be taken under the various elective categories, or they may be substituted for certain advanced physics courses approved by the adviser. The college requirement of 18 hours of social sciences and humanities must be met. The options are as follows:

Applied Nuclear Physics
Bioengineering (see page 180)
Fluids and Plasmas
Optical Physics and Lasers
Physical Electronics
Systems Analysis and Control Theory

CURRICULUM IN GENERAL ENGINEERING

For the degree of Bachelor of Science in General Engineering

The general engineering curriculum provides a comprehensive program in the basic sciences, engineering sciences, and in project design, together with specialized training in an approved secondary field. The secondary field may be selected from the areas shown below or from any other cohesive field of study approved by the department. Other fields selected in the past include law, mathematics, bioengineering, oceanography, meteorology, and technical writing. The program is centered around a strong core in mathematics, theoretical and applied mechanics, basic electronics, thermodynamics, and interdisciplinary design.

The curriculum requires 127 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	4
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry I	5
Econ. 101 — Introduction to Economics	4
Total	16

SECOND SEMESTER	HOURS
Math. 132 — Calculus and Analytic Geometry II	3
Phycs. 106 — General Physics (Mechanics)	4
Rhet. 105 — Principles of Composition	4
Math. 225 — Introductory Matrix Theory	2
Humanities and social sciences elective[1]	3
Total	16

SECOND YEAR

C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3
Math. 242 — Calculus and Analytic Geometry III	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 150 — Analytical Mechanics (Statics)	2
Humanities or social sciences elective[1]	3
Total	15

Math. 345 — Differential Equations and Orthogonal Functions	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 212 — Engineering Mechanics II (Dynamics)	3
T.A.M. 221 — Elementary Mechanics of Solids	3
Humanities or social sciences elective[1]	3
Total	16

THIRD YEAR

G.E. 221 — Introduction to General Engineering Design	3
G.E. 222 — Analysis of Dynamic Systems	3
G.E. 288 — Economic Analysis for Engineering Decision Making	3
E.E. 260 — Networks I	3
Secondary field elective	3
Total	15
E.E. 244 — Electrical Engineering Laboratory I	2
G.E. 232 — Engineering Analysis	4
G.E. 234 — General Engineering Laboratory	3
M.E. 205 — Thermodynamics	3
Secondary field elective	3
Humanities or social sciences elective[1]	2
Total	17

FOURTH YEAR

G.E. 241 — Component Design	4
G.E. 292 — Engineering Law	3
T.A.M. 235 — Fluid Mechanics	4
Secondary field elective	3
Free elective	3
Total	17
G.E. 242 — Project Design	3
G.E. 291 — General Engineering Seminar	0
Technical elective	3
Secondary field elective	3
Humanities or social sciences elective[1]	3
Free elective	3
Total	15

[1] Students must complete at least one elective sequence of at least 6 hours in both the social sciences and the humanities. (See page 186.)

Suggested Fields of Concentration

ENGINEERING ADMINISTRATION

	HOURS
Accy. 200 — Fundamentals of Accounting	3
B. Adm. 210 — Management and Organizational Behavior	3
B. Adm. 314 — Production	3
B. Adm. 315 — Management in Manufacturing	3
B. Adm. 321 — Individual Behavior in Organizations	3
B. Adm. 323 — Organizational Design and Environment	3
B. Adm. 351 — Personnel Administration	3
Fin. 254 — An Introduction to Business Financial Management	3
G.E. 334 — Introduction to Reliability Engineering	3
G.E. 392 — Legal Problems in Engineering Design	3
I.E. 238 — Analysis of Data	3
I.E. 335 — Industrial Quality Control	3
I.E. 373 — Production Planning and Control	3
I.E. 386 — Operations Research II	3-4
B.&T.W. 251 — Business and Administrative Communication	3

ENGINEERING MARKETING

Accy. 200 — Fundamentals of Accounting	3
B. Adm. 202 — Principles of Marketing, or B. Adm. 272 — Industrial Selling	3
B. Adm. 320 — Marketing Research	3
B. Adm. 337 — Promotion Management	3
B. Adm. 344 — Consumer Behavior	3
B. Adm. 360 — Marketing Logistics	3
G.E. 392 — Legal Problems in Engineering Design	3
I.E. 238 — Analysis of Data	3
Psych. 245 — Industrial Organizational Psychology	3
B.&T.W. 251 — Business and Administrative Communication	3

ENVIRONMENTAL QUALITY

C.E. 241 — Air and Water Quality	3
C.E. 340 — Physical Principles of Environmental Engineering Processes	3
C.E. 341 — Air Resources Management	2
C.E. 342 — Water Quality Control Processes	3
C.E. 343 — Chemical Principles of Environmental Engineering Processes	3-4
C.E. 344 — Solid Wastes Management	4
C.E. 345 — Atmospheric Dispersion Modeling	3
C.E. 346 — Biological Principles of Environmental Engineering Processes	3
C.E. 347 — Ecology	3
C.E. 349 — Air Resources Engineering	3
M.E. 303 — Applied Combustion	3
Env. St. 331 — Toxic Substances in the Environment	2

COMPUTER SCIENCE

Any computer science course beyond C.S. 101.	
G.E. 293 — Section C, Computer Graphics in Engineering	3

MINING AND GEOLOGICAL ENGINEERING

C.E. 201 — Engineering Surveying[1] 4
C.E. 280 — Introduction to Soil Mechanics and Foundation Engineering 3
C.E. 284 — Geotechnical Engineering 3
C.E. 383 — Soil Mechanics and Soil Properties 4
C.E. 384 — Applied Soil Mechanics 4
Geol. 107 — General Geology I[1] 4
Geol. 108 — General Geology II[1] 4
Geol. 250 — Geology for Engineers 3
Geol. 311 — Structural Geology 4
Geol. 321 — Principles of Stratigraphy 4
Geol. 332 — Mineralogy-Petrology 4
I.E. 238 — Analysis of Data 3
I.E. 357 — Safety Engineering 3
Math. 343 — Advanced Calculus 3
Any mining engineering course 1-4

CONTROL SYSTEMS

C.S. 221 — Machine-Level Programming 3
C.S. 225 — Data Structures 3
E.E. 386 — Control Systems 4
E.E. 390 — Introduction to Optimization 3
G.E. 324 — Digital Control of Dynamic Systems 3
Math. 361 — Introduction to Probability Theory I 3
M.E. 312 — Modern Control Theory 4
M.E. 313 — Computer Control of Mechanical Engineering Systems 3
M.E. 388 — Industrial Control Systems 3

ROBOTICS

C.S. 346 — Pattern Recognition and Machine Learning 3
C.S. 347 — Knowledge-based Programming 3
C.S. 375 — Automata, Formal Languages, and Computational Complexity 3
E.E. 291 — On-Line Computing 3
E.E. 348 — Introduction to Artificial Intelligence 3
E.E. 375 — Modeling of Bio-Systems 3-4
E.E. 390 — Introduction to Optimization 3
G.E. 324 — Digital Control of Dynamic Systems 3
G.E. 334 — Introduction to Reliability Engineering 3
G.E. 393 — Introduction to Robotics 3-4
G.E. 393L — Robotics Laboratory 3
M.E. 285 — Analysis of Manufacturing Processes 3
M.E. 313 — Computer Control of Mechanical Engineering Systems 3
M.E. 342 — Kinematic Analysis and Synthesis 4
M.E. 343 — Dynamics of Machinery 3
M.E. 375 — Introduction to Bionics 3

[1] These courses are required in the mining engineering option. These hours will count as the secondary field, and 6 additional hours will be substituted for other courses with the approval of the adviser.

CURRICULUM IN INDUSTRIAL ENGINEERING

For the degree of Bachelor of Science in Industrial Engineering

Industrial engineering is concerned with the design, improvement, and installation of integrated systems of people, materials, and equipment, drawing upon specialized knowledge and skill in the mathematical, physical, and social sciences together with the principles and methods of engineering analysis and design, to specify, predict, and evaluate the results to be obtained from such systems. Industrial engineers are in demand by a wide variety of industries ranging from metalworking through electrical, chemical, pharmaceutical, and food processing. Today industrial engineers are also in demand in nonindustrial organizations such as those engaged in distribution, utilities, health care, financial services, environmental control, and information services.

The curriculum requires 130 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	4
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry I	5
Rhet. 105 — Principles of Composition	4
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	4
Math. 132 — Calculus and Analytic Geometry II	3
Math. 225 — Introductory Matrix Theory	2
Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences elective[1]	3
Total	16

SECOND YEAR

C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3
Math. 242 — Calculus of Several Variables	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 154 — Analytical Mechanics (Statics and Dynamics)	4
Humanities or social sciences elective[1]	3
Total	17

Math. 345 — Differential Equations and Orthogonal Functions	3
M.E. 209 — Thermodynamics and Heat Transfer	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 221 — Elementary Mechanics of Solids	3
Humanities or social sciences elective[1]	3
Total	16

THIRD YEAR

I.E. 238 — Analysis of Data	3
I.E. 248/Psych. 258 — Human Factors in Human-Machine Systems	3
I.E. 385 — Operations Research I	3
M.E. 231 — Processing and Structure of Materials	4
Humanities or social sciences elective[1]	3
Total	16

E.E. 260 — Introduction to Circuit Analysis	3
I.E. 203 — Engineering Economics	4
I.E. 232 — Methods-Time Analysis	3
I.E. 291 — Seminar	0
I.E. 386 — Operations Research II	3
M.E. 285 — Analysis of Manufacturing Processes	3
Total	16

FOURTH YEAR

I.E. 335 — Industrial Quality Control	3
I.E. 363 — Facilities Planning and Design	3
I.E. 373 — Production Planning and Control	3
Technical elective[2]	3
Humanities or social sciences elective[1]	3
Free elective	3
Total	18

I.E. 370 — Industrial Engineering Design Laboratory	3
Technical elective[2]	6
Humanities or social sciences elective[1]	3
Free elective	3
Total	15

[1] A total of 18 hours of humanities and social sciences electives is required, one course of which must be economics. (See page 186.)

[2] Nine hours of technical electives are required and must be chosen from a departmentally approved list.

CURRICULUM IN MECHANICAL ENGINEERING

For the degree of Bachelor of Science in Mechanical Engineering

Mechanical engineering is concerned with the theory of conversion and transmission of energy and the practical use of power processes; the kinematic, dynamic, and strength and wear considerations as well as the technological and economic aspects in the development, design, and use of machines and processes; the analysis, synthesis, and control of entire engineering systems; and the organizational and management problems confronting the mechanical engineer.

The curriculum requires 130 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	4
Eng. 100 — Engineering Lecture	0
Math. 120 — Calculus and Analytic Geometry I	5
Rhet. 105 — Principles of Composition	4
Humanities or social sciences elective[1]	3
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	4
G.E. 103 — Engineering Graphics I	3
Math. 132 — Calculus and Analytic Geometry II	3
Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences elective[1]	3
Total	17

SECOND YEAR

Math. 225 — Introductory Matrix Theory	2
Math. 242 — Calculus of Several Variables	3
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
T.A.M. 154 — Analytical Mechanics (Statics and Dynamics)	4
Total	16
Math. 345 — Differential Equations and Orthogonal Functions	3
M.E. 220 — Mechanics of Machinery	3
Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
T.A.M. 221 — Elementary Mechanics of Solids	3
Humanities or social sciences elective[1]	3
Total	16

THIRD YEAR

E.E. 260 — Introduction to Circuit Analysis	3
M.E. 205 — Thermodynamics	3
M.E. 211 — Introductory Gas Dynamics	3
M.E. 240 — Modeling and Analysis of Dynamic Systems	4
Humanities or social sciences elective[1]	3
Total	16
M.E. 213 — Heat Transfer	3
M.E. 231 — Processing and Structure of Materials	4
M.E. 270 — Analysis and Design of Machines	4
M.E. 291 — Seminar	0
Humanities or social sciences elective[1]	3
Free elective	3
Total	17

FOURTH YEAR

M.E. 232 — Behavior of Materials in Service	2
M.E. 261 — Introduction to Instrumentation, Measurement, and Control Fundamentals[4]	3
M.E. 285 — Analysis of Manufacturing Processes	3
M.E. 304 — Energy Conversion Systems	3
Technical elective[2]	3
Humanities or social sciences elective[1]	3
Total	17
Mechanical Engineering Systems[3]	3
M.E. 250 — Thermal Science Laboratory[4]	3
Free elective	3
Technical electives[2]	6
Total	15

[1] A total of 18 hours of humanities and social sciences electives is required, one course of which must be economics. (See page 186.)

[2] Nine hours of technical electives are required and must be chosen from a departmentally approved list.

[3] Mechanical engineering systems to be chosen from M.E. 323, 335, 341, 388; I.E. 336, 350; and other courses approved by the department.

[4] M.E. 261 and M.E. 250 can be alternated with M.E. 250 taken first and followed by M.E. 261.

CURRICULUM IN METALLURGICAL ENGINEERING

For the degree of Bachelor of Science in Metallurgical Engineering

The program in metallurgical engineering emphasizes physical metallurgy and permits the student, by appropriate selection of elective courses, to emphasize engineering metallurgy, polymers, metal physics, or some other well-defined career objective. The basic core of physical metallurgy principles is treated in the sequence Met. E. 370-373, and this may be taken by students from other curricula who wish to obtain a strong foundation in the principles of physical metallurgy.

The curriculum requires 128 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	4
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry I	5
Rhet. 105 — Principles of Composition	4
Total	16
SECOND SEMESTER	**HOURS**
Chem. 102 — General Chemistry	4
Math. 132 — Calculus and Analytic Geometry II	3
Phycs. 106 — General Physics (Mechanics)	4
Humanities or social sciences electives[1]	4
Total	15

SECOND YEAR

Math. 225 — Introductory Matrix Theory	2	Math. 345 — Differential Equations and Orthogonal Functions	3
Math. 242 — Calculus and Analytic Geometry III	3	Phycs. 108 — General Physics (Wave Motion, Sound, Light, and Modern Physics)	4
Phycs. 107 — General Physics (Heat, Electricity, and Magnetism)	4	T.A.M. 221 — Elementary Mechanics of Solids	3
T.A.M. 154 — Analytical Mechanics (Statics and Dynamics)	4	C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3
Elective[1]	3	Elective[1]	3
Total	16	Total	16

THIRD YEAR

Met. E. 370 — Physical Metallurgy I	3	Met. E. 372 — Physical Metallurgy II	3
Met. E. 371 — Physical Metallurgy Laboratory I	3	Met. E. 373 — Physical Metallurgy Laboratory II	3
Met. E. 310 — Crystallography and Diffraction	4	Electives[1]	10
Met. E. 314 — Metallurgical Thermodynamics	3	Total	16
Elective[1]	3		
Total	16		

FOURTH YEAR

E.E. 220 — Basic Electrical Engineering	3	Electives[1]	16
Met. E. 296 — Metallurgical Seminar	2	Total	16
Met. E. 316 — Mechanical Metallurgy	3		
Met. E. 318 — Physics of Metals	3		
Electives[1]	6		
Total	17		

[1] All students are required to satisfy the college requirement of 18 hours in the social sciences and humanities (page 186). Six hours of electives are free to be selected by the student. A minimum of 9 hours is to be selected from among these departmental electives: Met. E. 299, 301, 306, 307, 312, 317, 375, 376, 378, 386, 389. A minimum of 6 hours of technical electives are to be taken outside the department. A liberal interpretation of *technical elective* will be taken, and may include such courses that satisfy a carefully thought-out career plan presented by the student to his or her adviser.

CURRICULUM IN MINING ENGINEERING

See General Engineering, on pages 199, 200, and 201, for undergraduate curriculum.

CURRICULUM IN NUCLEAR ENGINEERING

For the Degree of Bachelor of Science in Nuclear Engineering

The curriculum in nuclear engineering provides students comprehensive study in basic sciences, basic engineering, the social sciences and humanities, and technical areas specific to nuclear engineering. It also provides a large, flexible selection of both technical and free electives which enable the student to emphasize breadth and/or depth of study. Thus, the curriculum not only prepares the B.S. graduate to enter directly into a wide variety of careers in nuclear engineering, but also to continue formal education at the graduate level.

Nuclear engineering is a branch of engineering primarily related to the development and utilization of nuclear energy sources. These include: (1) the continued application of fission reactors as central electric power plant thermal sources; (2) the longer term development of fusion reactors for electric power generation; and (3) the use of radiation sources in such areas as materials, biological systems, medical treatment, and industrial instrumentation.

The curriculum during the first two years provides a strong foundation in basic sciences (physics, mathematics, and chemistry) and an introduction to basic electric circuits and to digital computer utilization. Taking these courses during this time in the program provides the student added flexibility in choosing technical elective courses.

The curriculum requires 127 hours for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 101 — General Chemistry	4
Eng. 100 — Engineering Lecture	0
G.E. 103 — Engineering Graphics I	3
Math. 120 — Calculus and Analytic Geometry I	5
Rhet. 105 — Rhetoric	4
Total	16

SECOND SEMESTER	HOURS
Chem. 102 — General Chemistry	4
Math. 132 — Calculus and Analytic Geometry II	3
Math. 225 — Introduction to Matrix Theory	2
Phycs. 106 — General Physics	4
Elective in social sciences and humanities[1]	2
Nuc. E. 197 — Nuclear Energy and Its Uses[2]	1
Total	16

SECOND YEAR

Math. 242 — Calculus of Several Variations	3
Phycs. 107 — General Physics	4
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science	3
Elective in social sciences and humanities,[1] free,[3] or nuclear engineering[4]	2-3
Econ. 101 — Introduction to Economics	4
Total	16-17

Phycs. 108 — General Physics	4
Math. 345 — Differential Equations	3
T.A.M. 154 — Statics and Dynamics	4
E.E. 260 — Introduction to Circuit Analysis	3
Elective in social sciences and humanities,[1] free,[3] or nuclear engineering[4]	2-3
Total	16-17

THIRD YEAR

M.E. 205 — Thermodynamics	3
Nuc. E. 346 — Modern Physics for Nuclear Engineers	3
T.A.M. 221 — Elementary Mechanics of Solids	3
Advanced mathematics	3
Elective in social sciences and humanities[1]	3
Total	15

Nuc. E. 347 — Introduction to Nuclear Engineering	4
Technical electives[6]	3
Elective in social sciences and humanities[1]	3
Nuc. E. 351 — Nuclear Engineering Laboratory	3
M.E. 211 — Introduction to Gas Dynamics	3
Total	16

FOURTH YEAR

Elective in nuclear engineering[4]	3
Technical electives[6]	6
Nuc. E. 352 — Advanced Nuclear Engineering Laboratory	1
Nuc. E. 358 — Design in Nuclear Engineering	3
Elective in social sciences and humanities,[1] or free[3]	3
Total	16

Elective in nuclear engineering[4]	3
Technical electives[6]	6
Electives in social sciences and humanities,[1] or free[3]	6
Total	15

[1] All students are required to satisfy the college requirements of 18 hours in the social sciences and humanities. Included in this group should be Econ. 101.

[2] This is not a required course, but it is recommended that Nuc. E. 197 be taken in the freshman or sophomore year.

[3] Six hours of electives are free to be selected by the student.

[4] A student is required to take a minimum of 9 hours selected from the following nuclear engineering electives (at least 6 hours are to be at the 300 level): Nuc. E. 197 — Nuclear Energy and Its Uses (1); Nuc. E. 241 — Introduction to Radiation Protection (2); Nuc. E. 243 — Radiation Protection Laboratory (1); Nuc. E. 290 — Special Topics (1 to 4); Nuc. E. 295 — Special Problems (1 to 4); Nuc. E. 312 — Nuclear Power Economics and Fuel Management (3); Nuc. E. 321 — Introduction to Controlled Thermonuclear Fusion (4); Nuc. E. 331 — Material Science in Nuclear Engineering (3); Nuc. E. 341 — Nuclear Radiation Protection (3); Nuc. E. 342 — Radioactive Waste Management (2); Nuc. E. 352 — Advanced Nuclear Engineering Laboratory (1 to 3); Nuc. E. 355 — Reactor Statics and Dynamics (3); Nuc. E. 357 — Nuclear Reactor Safeguards (3); Nuc. E. 388 — Nuclear Ceramics (3); and Nuc. E. 390 — Intermediate Special Topics (1 to 4).

[5] Students are required to take a minimum of one 3-hour advanced mathematics course in the 300 series in addition to Math. 345.

[6] A student is required to select 15 hours of technical electives, as specified in the college-approved list on page 187.

Note: Students are required to have a specific area of specialization. This is accomplished by careful selection of technical electives and nuclear engineering electives to provide a minimum of three courses in the specialized area of study. Examples of such areas are power, materials, radiation protection and application, thermal-hydraulics, fusion, and plasma engineering. A student who has selected an area of specialization may elect to substitute a more appropriate course for those specified as required in the above listing in order to begin a sequence. Course substitution must have as high a caliber and content as that being replaced.

College of Fine and Applied Arts

116 Architecture Building, 608 East Lorado Taft Drive, Urbana, IL 61801

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The College of Fine and Applied Arts prepares men and women for professional work by offering programs in architecture, art and design, dance, landscape architecture, music, theatre, and urban and regional planning. Both freshmen and transfer students are admitted to these curricula. In each curriculum certain basic courses, professional courses, and general education requirements including a minimum approved sequence of 6 semester hours each in the humanities, social sciences, and natural sciences, must be completed in order to qualify for the specific baccalaureate degree offered.

For development beyond the undergraduate programs in these areas of study, the departments of the college offer graduate curricula leading to advanced professional degrees through the Graduate College.

For students enrolled in other colleges and schools of the University of Illinois at Urbana-Champaign, the College of Fine and Applied Arts offers introductory courses designed to increase aesthetic appreciation and development and to portray the role of the arts in civilization. Participation in University Bands is available, and applied music courses are also available.

To serve the total academic community and all citizens in the state of Illinois, the college features the arts by exhibitions, concerts, lectures, performances, demonstrations, and conferences within the areas of architecture, art, dance, landscape architecture, music, theatre, and urban and regional

planning. Many outstanding professionals and works in these fields are brought to the University campus.

In addition to the teaching divisions, the College of Fine and Applied Arts includes the Krannert Center for the Performing Arts, the Krannert Art Museum, The University of Illinois Bands, the Bureau of Urban and Regional Planning Research, and the Small Homes Council–Building Research Council.

KRANNERT ART MUSEUM

The museum exhibits art objects from its extensive collections, which date from ancient Egypt to our own times. In addition, it schedules a full program of changing exhibitions. These bring to the campus a wide variety of historic and contemporary works of art.

KRANNERT CENTER FOR THE PERFORMING ARTS

The Krannert Center for the Performing Arts, which opened in 1969, is a remarkable four-theatre, performing arts complex with spaces for instruction, rehearsal, and performance in theatre, opera, dance, and music. The Foellinger Great Hall, seating 2,200, is designed for large-scale musical events. The Festival Theatre, with 1,000 seats, is for opera, dance, and other musical stage productions. The Colwell Playhouse seats 700 and is the home of the Illinois Repertory Theatre. The Studio Theatre, seating 150, is for experimental productions. An outdoor amphitheatre, rehearsal rooms, offices, dressing rooms, technical shops, and underground parking on two levels for 650 cars complete this monumental facility. The major donors of the center were Mr. and Mrs. Herman C. Krannert of Indianapolis.

UNIVERSITY OF ILLINOIS BANDS

The University Bands are organized into the Symphonic Band, the Symphonic Band II, the First and Second Concert Bands, the Clarinet Choir, the Brass Band, the Marching Band, and the Basketball Band. Membership in these organizations is determined by audition, and assignments are made according to proficiency and instrumentation needs.

The bands play numerous concerts on the campus. The Symphonic Band also appears at the National Music Educators Conventions and in many Illinois and other midwestern cities. In addition, the bands furnish music for Commencement, convocations, athletic events, military ceremonies, and other occasions.

The University owns a large library of band music in addition to the John Philip Sousa Memorial Library. These collections comprise one of the largest and finest libraries of band music in the world.

The symphonic bands maintain complete symphonic instrumentations for the study and performance of all types of band literature while the concert bands maintain the instrumentation of the standard band. Promotions to the symphonic bands may be made directly from any of the three concert bands.

One hour of credit per semester is offered for participation in band. This credit may be used as School of Music ensemble credit and is available as elective credit in other colleges.

The following individuals are involved in the teaching of band students: James Keene, Gary Smith, James Hile, and Eldon Oyen.

LIBRARIES

Students in the college have at their disposal outstanding library resources. In addition to the general Library, one of this country's great university collections, there are specialized libraries serving the needs of specific fields. The Ricker Library of Architecture and Art contains more than 49,000 books (with almost 50,000 in the same fields in the main University Library), 33,000 photographs, and 9,400 clippings.

The City Planning and Landscape Architecture Library houses some 20,000 volumes of current interest, while more than 100,000 related volumes are in the University Library.

The School of Music Library, located in the Music Building, contains over 750,000 items.

These include introductory, instructive, research, and reference materials including books, editions of music, recordings, manuscripts, microfilm, and other nonbook materials.

DEPARTMENTS AND CURRICULA

The College of Fine and Applied Arts consists of the Departments of Dance, Landscape Architecture, Theatre, and Urban and Regional Planning with the Bureau of Urban and Regional Planning Research; the Schools of Architecture, Art and Design, and Music; the University Bands; the Small Homes Council–Building Research Council; the Krannert Art Museum; and the Krannert Center for the Performing Arts. The specific functions of each department or school and the undergraduate curricula are described on the following pages.

All departments in the College of Fine and Applied Arts reserve the right to retain, exhibit, and reproduce the works submitted by students for credit in any course.

SPECIAL PROGRAMS

Individual Study Program

All curricula offered by the College of Fine and Applied Arts are designed to develop professional competence in the specific area of studies noted on the degree. Therefore, an individual study program must ensure this professional development.

A qualified student who has specific professional goals which are not met by the curricular offerings of the college may request an individual program of studies selected from courses offered by the University. Such a program must include the basic courses prerequisite for advanced study, requirements of the University for graduation, general education sequences and requirements of the college, and professional course work which will ensure the competence expected for the particular degree.

To obtain approval for an individual study program, the student must submit his or her proposal in writing during the sophomore or junior year. The proposal should contain an outline of the complete program of course work as well as an explanation of the professional goal desired. It should be discussed with and submitted to an approved representative of the appropriate department or school concerned with the degree who will then forward the proposal through the executive officer of the department or school for recommendation to the college office. Final consideration and notification of the action taken on the proposal will be made by the college office.

Study Abroad

The college provides the opportunity for students to obtain campus credit for foreign study and/or travel for a period of from one semester to one calendar year. Students must submit a detailed proposal of plans for such study and/or travel for approval by their appropriate departmental committee and by the associate dean of the college prior to such study abroad. If approved, students register and retain their status as University students and may continue their student health insurance as if they continued to study at the Urbana-Champaign campus.

HONORS PROGRAM

Honors at Graduation

At graduation, the College of Fine and Applied Arts grants honors to superior students. To be eligible, students must have completed a minimum of four semesters of work or 65 hours of credit in residence at the Urbana-Champaign campus.

For the degree with Honors, the student must have a grade-point average of 4.25 (A = 5.0) or better in all courses used for graduation and be in the upper 25 percent of those receiving that particular degree; for the degree with High Honors, a grade-point average of 4.5 or better and be in the upper 15 percent; and for the degree with Highest Honors, a grade-point average of 4.75 or better and be in the upper 6 percent. Credit earned at other institutions and transferred to the University of Illinois is used in computing the student's average. Credit earned at the University of Illinois at Urbana-Champaign must be of at least the level required for the degree with Honors.

GRADUATION REQUIREMENTS

Students who meet the general University requirements with reference to registration, residence, scholarship, fees, rhetoric, and general education requirements, and who maintain a satisfactory record, receive degrees appropriate to the curriculum completed. Refer to the specific departmental and curricular requirements listed on the following pages. In addition, students must complete the required senior courses in their major field of study in residence at the Urbana-Champaign campus.

ELECTIVES AND GENERAL EDUCATION SEQUENCE REQUIREMENTS

Electives specified in any curriculum in the College of Fine and Applied Arts must be chosen from the lists which follow. Single courses specified in the sequence lists or more advanced courses for which they are prerequisites may also be used as electives.

General Education Sequence Requirements

To comply with the general education sequence requirements, each student in the College of Fine and Applied Arts must have a minimum of 6 semester hours in one department or in an approved sequence from different departments in each of the following three areas: the humanities, social sciences, and natural sciences (life or physical sciences).

1. A student may not use courses in his or her major area to satisfy a sequence requirement.
2. Basic foreign language courses, rhetoric, and speech requirements, L.A.S. 110 and 210, or courses numbered 199 may not be used to fulfill the sequence requirements.
3. Foreign language which is used in lieu of, or duplicates, high school entrance requirements will not be accepted as elective credit, nor will the first semester of any other foreign language be accepted without completion of the second semester.
4. A maximum of 6 hours credit in Rhet. 103, 104, 105, and 108 may be applied toward the degree. E.S.L. 114 and 115 will apply toward the degree.
5. Approval to use any course or sequence not contained in the listings must be requested by written petition to the Office of the Associate Dean of the college prior to registration in the substitute course or courses. Approval of an adviser or instructor only is not acceptable.

HUMANITIES SEQUENCES (6 semester hours)

African studies — 210 plus either Hist. 215 or Anth. 315
Anthropology — 169, 315, 329
Architecture — 210, 310-317 (not for architecture, art, landscape architecture, or urban and regional planning majors)
Art history — all courses (not for architecture, art, landscape architecture, or urban and regional planning majors)
Asian studies — all courses, except introductory and intermediate language courses
Classics — all courses, excluding Cl. Civ. 100; Grk. 101-112, 200-202; Lat. 101-114
Comparative literature — all courses
Dance — 340, 341 (not for dance majors)
English — all courses, excluding rhetoric, business and technical writing, and E.S.L. courses
French — all courses, excluding 100-114, 217, 270, 313, 314
German — all courses, excluding 101-124, 153, 211, 212, 382
History — 111, 112, 131, 132, 151, 152, 181, 182, 247, 248, 307, 308, 324, 381-384
Humanities — all courses
Italian — all courses, except 101-104, 209, 211, 212
Linguistics — 300-305, 309, 338, 340
  Arabic — 305
  Hindi — 308
  Hebrew — 307, 308, 311
Music — 113, 130, 131, 133, 213, 214, 310-315, 317 (not for music majors)
Philosophy — all courses, except those listed in physical and social science areas
Portuguese — all courses, except 101-104, 211, 212
Religious studies — all courses, except 111, 112, 200, and those listed in social science area
Russian — all courses, except 101-104, 211-214, 280, 303, 304, 307, 308, 313, 314
Scandinavian — all courses, except 101-104
Slavic — 319, 380, 381
Spanish — all courses, except 101-104, 114, 122-124, 209, 211, 215, 217, 225, 280, 351, 352, 371
Speech communications — 141, 142, 177, 178, 207, 213, 243, 308, 315, 319, 320, 322, 342, 344, 345, 387
Theatre — 110, 353, 354, 361, 362 (not for theatre majors)

SOCIAL SCIENCE SEQUENCES (6 semester hours)

African studies — 222, 325
Anthropology — all courses, except those listed in life science
Economics — all courses
Family and consumer economics — 170, 313
Geography — all courses, except those listed in life and physical science areas
History — 111, 112, 131, 132, 151, 152, 211, 212, 215, 216, 253, 254, 260-262, 307, 308, 379-384, 386
Linguistics — 225, 307, 325, 350, 370
Philosophy — 106, 107, 280, 336, 375, 377
Political science — all courses
Political science — 150, plus Hist. 151, 152 or 260, 261, or 262
Psychology — all courses, except those listed in life sciences
Religious studies — 229, 304, 328, 363
Sociology — all courses, except 246
Speech communications — 113, 221, 230, 254, 321, 335

NATURAL SCIENCE SEQUENCES (6 semester hours)

Physical sciences
- Astronomy — all courses
- Biochemistry — all courses
- Chemical engineering — all courses
- Chemistry — all courses
- Geography — 102, 103, 303
- Geology — all courses
- Mathematics — all courses, excluding 101, 111, 202, 203, 305-307 (cannot duplicate high school entrance regardless of course placement by examination or curriculum requirements or prerequisites)
- Philosophy — 202, 339
- Physics — all courses

Life sciences (any 6 hours may be from more than one department)
- Anatomical Science — all courses
- Anthropology — 143, 240, 246, 337, 340-347, 356
- Biology — all courses; 100, 101 recommended
- Ecology, ethology, evolution — all courses; 105, 143 recommended
- Entomology — all courses; 118 recommended
- Foods and nutrition — 120, 220
- Genetics and development — all courses
- Geography — 214, 305
- Microbiology — all courses; 113 recommended
- Physiology — all courses; 103 recommended
- Plant biology — all courses; 100, 234, 260 recommended
- Psychology — 103, 211, 217, 230, 246, 342, 347
- Sociology — 246, with a course in the life sciences totaling 6 hours or more

ELECTIVE AREAS

Electives specified in any curriculum in the College of Fine and Applied Arts must be chosen from the list which follows. Single courses specified in the general education sequence lists or more advanced courses for which they are prerequisites may also be used as electives. Always check prerequisite requirements when registering for these courses.

Air Force aerospace studies, military science, and naval science — advanced courses only (maximum of 6 hours)
Anthropology
Architecture — 210, 310-317 (no courses usable as electives for architecture and art majors)
Art — all courses specified for nonmajors, and all art history courses (none usable for art and architecture majors except by petition)
African studies
Asian studies
Astronomy
Bands — up to 3 hours (not for music majors)
Chemistry
Classics
Comparative literature
Computer science
Dance — especially 101, 102, 107, 108, 131, 150, 331, 340, 341, 3 hours maximum studio courses to apply as elective credit (none for dance majors)
Ecology, ethology, evolution
Economics
English — including advanced rhetoric, and business and technical writing
Family and consumer economics
Foods and nutrition — 120, 220
French[1]

Geography
Geology
Germanic language and literatures[1]
Health education
History
Human development and family ecology
Humanities
Labor and industrial relations
Landscape architecture — (not for landscape architecture majors)
Latin American studies
L.A.S. — 110 and 210 *by petition only* (maximum of 6 hours)
Library sciences
Life sciences
Linguistics
Mathematics[1]
Music — especially 100-104, 113, 130, 131 (instrumental courses: 2 maximum; ensembles including bands: 3 maximum) (not for music majors)
Philosophy
Physics
Political science
Physical education — (activity courses maximum of 3 hours)
Psychology
Religious studies
Slavic languages and literature
Social sciences
Sociology
Spanish, Italian, and Portuguese
Speech communications
Theatre — especially 110, 281 (not for theatre majors)
Urban planning — (not for urban and regional planning or architecture majors)

[1] Cannot duplicate high school entrance or curricular requirements or prerequisites regardless of course placement by exam.

SPECIFIC ELECTIVE COURSES

The following list of courses available as electives offers specialized areas of knowledge not found in previous lists. These courses have obvious professional values to many in fine and applied arts: other courses may simply be personally informative or significant. No more than 9 hours of courses in any one of these areas should be taken.

Accountancy — 101, 105, 201
Advertising — 281
Agricultural economics — 100
Agronomy — 121, 350
Business administration — 202, 210, 247, 261, 323, 337, 344
Civil engineering — 216, 230
Communications — 220, 251
Electrical engineering — 271, 272, 288
General engineering — 200 and 300 level
Finance — 264
E.P.S. — 300, 305
Journalism — 220, 251
Mechanical and industrial engineering — all courses

PROFESSIONAL ELECTIVES

Professional electives as specified in any curriculum are:

1. Courses offered by the student's department, and
2. Technical or related courses which will aid in the development of a student's professional goal and which are approved by the student's department and college.

School of Architecture

Architecture is concerned with shaping man's environment for the achievement of human purposes. In accomplishing this, an architect has the responsibility to direct his or her professional effort to contribute to the physical, psychological, and social well-being of man.

The education of an architect must stimulate sensitivity and understanding of human needs and must develop the ability to satisfy those needs through the design of the built environment. The educational process focuses on the nature of problems, methodologies in problem solving, relevant information and creative skills, and the development of the student's intellectual and judgmental capabilities. This process is framed within a curriculum which specifically emphasizes

an awareness of the significance of architectural history and an understanding of architectural design, structural design, environmental technology, building construction techniques, and the administrative and communication process necessary for implementation of building projects.

DEGREE PROGRAMS IN ARCHITECTURE

The School of Architecture offers a four-year undergraduate preprofessional curriculum leading to the Bachelor of Science in Architectural Studies degree. The two-year graduate program leads to the professional degree, Master of Architecture.

The undergraduate curriculum provides the fundamentals of a professional education, the base upon which advanced professional education can build and further an acquisition of knowledge appropriate to many roles in architecture, planning, and the construction industry.

Students who have received the Bachelor of Science in Architectural Studies degree or an equivalent degree from another university, and who meet all requirements for admission to the graduate curriculum, may apply for admission to the Graduate College in that curriculum. Students with a five-year Bachelor of Architecture degree may make similar application for admission at the second-year level in the graduate curriculum. The graduate curriculum provides advanced professional education, and, in addition, the opportunity for specialization. The University recommends attainment of the Master of Architecture degree to students whose goals include establishment of professional standing. The Master of Architecture degree program is fully accredited by the National Architectural Accrediting Board. For details of the graduate curriculum, please refer to the *Graduate Programs* catalog, University of Illinois at Urbana-Champaign.

School facilities are limited, and preference will be given to the best qualified applicants until quotas are filled at both the undergraduate and graduate levels of the program.

Since 1967, the School of Architecture has operated a one-year overseas program in Versailles, France which is open to qualified students on a priority basis. Course offerings there parallel those available to students on the Urbana-Champaign campus but stress the European context.

The School of Architecture occupies drafting rooms, lecture rooms, and offices in the Architecture Building, Flagg Hall, and Noble Hall. The Ricker Library of Architecture and Art is located in the Architecture Building.

UNDERGRADUATE CURRICULUM IN ARCHITECTURE

For the degree of Bachelor of Science in Architectural Studies

In this curriculum, normal progress is imperative. A student failing to complete any required course more than one semester later than the time designated in the curriculum is prohibited from progressive registration in architectural courses until the deficiency is corrected. To continue at the sophomore level and beyond, a student must have a cumulative grade-point average of 3.25 for all University course work attempted (A = 5.0). For the Bachelor of Science in Architectural Studies degree, 127 semester hours are required.

FIRST YEAR FIRST SEMESTER	HOURS
Hist. 111 — History of Western Civilization to 1660	4
Social science sequence	3
Rhet. 105 or 108 — Composition	4
Math. 120 — Calculus and Analytic Geometry I	5
Total	16

SECOND SEMESTER	HOURS
Hist. 112 — History of Western Civilization, 1660 to the Present	4
Social science sequence	3
Math. 132 — Calculus and Analytic Geometry II	3
Art G.P. 187 — Drawing	2
C.S. 102 — Introduction to Digital Computing	3
Total	15

SECOND YEAR

Arch. 171 — Arch. Design I	3
Arch. 210 — Introduction to History of Architecture	3
Arch. 231 — Anatomy of Buildings	4
Art G.P. 188 — Watercolor	2
Elective[2]	3
Total	15

Arch. 172 — Arch. Design II	3
Arch. 232 — Construction of Buildings	4
Art G.P. 189 — Art Experiences	2
Elective[2]	6
Total	15

THIRD YEAR

Arch. 271 — Arch. Design III	3
Arch. History (Arch. 310, 311 or 312)	3
Arch. 251 — Statics and Dynamics	4
U.P. 101 — Planning of Cities and Regions (or approved urban studies substitute)[1]	3
Elective[2]	3
Total	16
Arch. 272 — Arch. Design IV	3
Arch. History (Arch. 313 or 314)	3
Arch. 252 — Strengths of Materials and Design Applications	4
Elective[2]	6
Total	16

FOURTH YEAR

Arch. 371 — Arch. Design V	6
Arch. 241 — Environmental Technology I	4
Arch. 351 — Theory and Design of Metal Structures	4
Elective[2]	3
Total	17
Arch. 372 — Arch. Design and Construction Documentation	6
Arch. 242 — Environmental Technology II	4
Arch. 352 — Theory and Design of Reinforced Concrete	4
Arch. History (Arch. 315, 316, or 318)	3
Total	17

[1] Approval by School of Architecture.
[2] General education electives are any courses in the approved college list: minimum of 12, maximum of 21 hours. Professional electives are courses in architecture and related professional disciplines approved by the School of Architecture: no minimum, maximum of 9 hours.

School of Art and Design

The School of Art and Design offers Bachelors of Fine Arts degrees in art education, crafts, graphic design, the history of art, industrial design, painting, and sculpture. The first year of each curriculum is basic and cultural. Specialization begins in the second year.

First-year students who wish to concentrate in the history of art will be admitted into the history of art curriculum. All other first-year students will be admitted to the general curriculum in art and design. After completing one year in the general program, students must select one of the more specialized art and design curricula.

Courses in the history and appreciation of art and certain courses in studio work are open to students from other colleges of the University.

A field of concentration in art history is also offered in the College of Liberal Arts and Sciences. (See page 246.)

Courses in cinematography, photography, and printmaking are offered at introductory, advanced, and graduate levels.

The degree of Master of Arts is offered with a major in either art history or art education. The degree of Master of Fine Arts in Art and Design is offered with majors in ceramics, glass, graphic design, industrial design, metals, painting, photography, printmaking, and sculpture. The degree of Doctor of Philosophy in the History of Art is offered jointly by the School of Art and Design and the School of Architecture. The degree of Doctor of Education in Art Education is offered jointly by the School of Art and Design and the College of Education. All graduate degrees are offered under the regulations of the Graduate College.

The school's administrative offices are in the Art and Design Building at 408 East Peabody Drive, Champaign, IL 61820. The school occupies studios, drafting rooms, classrooms, and offices in eighteen different University buildings.

PORTFOLIO AND MINIMUM GRADE REQUIREMENTS

A portfolio review may be required for placement in all art and design courses beyond the entry level of the Foundation Program. After completing the Foundation Program, students who meet or exceed minimum grade requirements listed below must apply for admission to one of the Bachelor of Fine Arts (B.F.A.) degree curricula. Higher than minimum grade-point averages may be required due to the limits of faculty and facilities. In addition to minimum grade requirements, some B.F.A. curricula select students by portfolio review near the end of the Foundation year. Minimum grade-point averages are:

The Foundation Program, Crafts, Graphic Design, History of Art, Painting, and Sculpture	3.25
Art Education, Industrial Design, and Graphic Design	3.50
Individual Study Programs	4.00

FOUNDATION PROGRAM FOR ALL ART AND DESIGN CURRICULA

FIRST YEAR FIRST SEMESTER	HOURS
Art Hi. 111 — Ancient and Medieval Art	4
Art G.P. 113 — Orientation to Art	0
Art G.P. 117 — Drawing	3
Art G.P. 119 — Design	3
Rhet. 105 or 108 — Composition	4
Elective	2
Total	16

SECOND SEMESTER	HOURS
Art Hi. 112 — Renaissance and Modern Art	4
Art G.P. 118 — Drawing	3
Art G.P. 120 — Design	3
Electives	6
Total	16

This first-year requirement is included in all art and design curricula which follow.

CURRICULUM IN ART EDUCATION

For the degree of Bachelor of Fine Arts in Art Education[1]

A minimum of 130 hours of credit is required for graduation.

The curriculum in art education prepares students for positions as teachers of art in the public schools, grades K through 12. The program places emphasis on methods, materials, processes, and practice teaching in Illinois schools. Upon completion, graduates are eligible for the Standard Special Certificate as defined by the Illinois State Teacher Certification Board.

For teacher education requirements applicable to all curricula, see pages 87 to 91.

GENERAL REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 or 108 and a speech communication performance elective	6-7
General psychology	3
One approved sequence of 6 hours in one of the natural sciences	6
One approved sequence of 6 hours in one of the humanities	6
American government (state and federal constitutions)	3
History of the United States	3
Physical and/or health education	3
Total	30-31

ART HISTORY	
Introduction of ancient and medieval art	4
Introduction to Renaissance and modern art	4
Advanced art history (200- or 300-level)	3
Total	11

GENERAL ART AND DESIGN	
Orientation to art	0
Drawing I, II	6
Design I, II	6
Life drawing I, II	4
Painting Composition I, II	4
Total	20

ART EDUCATION	
Art education laboratory	4
Practicum in teaching art	4
Art curriculum and practicum in the elementary grades	3
Organization of public school art programs	3
Total	14

PROFESSIONAL EDUCATION[2]	
Foundations of American education	2
Psychology of teaching and learning	3
Professional seminar in art education	4
Educational practice	10
Total	19

ELECTIVES	
Art electives[3]	21
General electives (see college list of approved electives)	6
General or professional electives	8-9
Total	35-36

[1] Students are advised that certification requirements may be altered at any time by the State Teacher Certification Board or the legislature. In such cases, students must satisfy the new requirements to qualify for the University's Recommendation for Certification.
[2] Art education courses are applicable to professional education requirements for teacher certification.
[3] A minimum of 8 semester hours is required in one of the following areas of specialization: sculpture, painting, ceramics, glass, jewelry and metalworking, photography, or printmaking.

TEACHER EDUCATION MINOR IN ART EDUCATION

GENERAL ART AND DESIGN

Required courses in drawing and design must precede all other course work in the minor area:

	HOURS
Art & D. 107 — Elementary Drawing	2
Art & D. 185 — Design	2
Subtotal	4

Elect six hours from the following courses:

Art & D. 105 — Introduction to Watercolor Painting	2
Art & D. 106 — Introduction to Oil Painting	2
Art & D. 150 — Beginning Sculpture	2
Art Cr. 160 — Jewelry I	2
Art Cr. 170 — Ceramics I	2
Subtotal	6

ART EDUCATION

Art Ed. 204 — Art Education Laboratory	2
Art Ed. 206 — Practicum in Teaching Art	4
Art Ed. 207 — Art Curriculum Development and Practicum in the Elementary Grades	3
Subtotal	9

HISTORY AND APPRECIATION OF ART

Elect two from the following three courses:

Art & D. 140 — Introduction to Art	3
Art Hi. 115 — Art Appreciation	3
Art Hi. 116 — Masterpieces of Art	3
Subtotal	6
Total	**25**

CURRICULUM IN CRAFTS

For the degree of Bachelor of Fine Arts in Crafts

The curriculum in crafts emphasizes professional training for the development of the self-sustaining craftsman, the teacher of crafts, and the designer-craftsman in industry. The curriculum provides a choice of three areas of concentration: ceramics, glass working, and metal working. The emphasis within these areas of concentration is on the development of individual design capabilities and perceptions and upon the mastery of comprehensive technical skills. In conjunction with these individual areas of emphasis, each student is given experience in other craft media.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS

	HOURS
Rhet. 105 or 108	4
One approved sequence of 6 hours in each of the following areas: humanities, natural sciences, and social sciences	18
Electives (see college list of approved electives)	14-18
Total	36-40

ART HISTORY

Art Hi. 111 and 112 — Introduction to the History of Art	14
Advanced art history	6
Total	14

GENERAL ART AND DESIGN

Art G.P. 113 — Orientation to Art and Design 0
Art G.P. 117 and 118 — Drawing I and II 6
Art G.P. 119 and 120 — Design I and II 6
Art I.D. 133 and 134 — Design Workshop I and II 4
Art Pa. 125 and 126 — Life Drawing I and II 4
Total 20

ART ELECTIVES 12-14

PROFESSIONAL ELECTIVES 12-14

CRAFTS

Art Cr. 160 — Jewelry I and Art Cr. 170 — Ceramics I plus major sequence in ceramics or metal and 3 or 4 hours in allied crafts courses 25-26

CURRICULUM IN GRAPHIC DESIGN

For the degree of Bachelor of Fine Arts in Graphic Design

The curriculum in graphic design prepares the student for entrance into the professional practice in visual communications. Studio work encompasses typography, image making, production techniques, and the process of communication planning.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS **HOURS**

Rhet. 105 or 108 — English Composition 4
One approved sequence of 6 hours in each of the following areas: humanities, natural sciences, and social sciences 18
Total 22

ART HISTORY

Art Hi. 111 — Introduction to Ancient and Medieval Art 4
Art Hi. 112 — Introduction to Renaissance and Modern Art 4
Advanced art history 6
Total 14

GENERAL ART AND DESIGN

Art G.P. 113 — Orientation to Art and Design 0
Art G.P. 117 and 118 — Drawing I and II 6
Art G.P. 119 and 120 — Design I and II 6
Total 12

GRAPHIC DESIGN

Art G.D. 100 — Design History Survey 3
Art G.D. 120 — Visual Organization 3
Art G.D. 130 — Production 3
Art G.D. 140 — Typography 3
Art G.D. 210 — Photo/Graphics 3
Art G.D. 220 — Image Making 3
Art G.D. 230 — Methodology 3
Art G.D. 240 — Advanced Typography 3
Art G.D. 370 — Advanced Graphic Design I 3
Art G.D. 380 — Advanced Graphic Design II 3
Total 30

ELECTIVES

General electives (see college list of approved electives) 20-24
Professional and art electives 20-24
Total 44

CURRICULUM IN THE HISTORY OF ART

For the degree of Bachelor of Fine Arts in the History of Art

The curriculum in the history of art offers a broad cultural education which unites academic and studio training. The curriculum provides sound preparation for the graduate study required for museum work or teaching at the college level.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108 — English Composition	4
One approved sequence of at least 6 hours in each of the following areas: humanities, social science, natural science	18
Electives (see college list of approved electives)[1]	28-46
Supportive electives: In addition to the general education requirements a minimum of 6 hours chosen with the consent of the adviser in one of the following areas: ancient and modern literature, anthropology, classics, history, or philosophy	6
Total	56-74

SUPPORTING REQUIREMENTS IN ART	
Art Hi. 111 and 112 — Introduction to the History of Art	8
Art G.P. 113 — Orientation to Art and Design	0
Art G.P. 117 and 118 — Drawing I and II	6
Art G.P. 119 and 120 — Design I and II	6
Art electives	10-16
Total	30-36

ADVANCED ART HISTORY	
Advanced art history	18-36
Total	18-36

[1] One foreign language through the 104 level or equivalent is required. French or German is strongly recommended.

CURRICULUM IN INDUSTRIAL DESIGN

For the degree of Bachelor of Fine Arts in Industrial Design

The curriculum in industrial design provides education in three-dimensional design for production, to meet the needs of people and their environment. Emphasis is placed on the awareness of the market demand for design, cognizance of methods and materials of production and their relative costs, creation of designs which are in visual harmony with their environment and which are satisfying to the consumer, and responsiveness to the changes in technology and cultural patterns.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS	HOURS
Rhet. 105 or 108 — English Composition	4
One approved sequence of 6 hours plus a 3-hour elective in the social sciences	9
One approved sequence of 6 hours plus a 3-hour elective in the humanities	9
One approved sequence of 8 hours in one of the natural sciences	8
Total	30

ART HISTORY	
Art Hi. 111 — Introduction to Ancient and Medieval Art	4
Art Hi. 112 — Introduction to Renaissance and Modern Art	4
Art I.D. 210 — History of Furniture and Interior Design	3
Advanced art or architecture history	3
Total	14

GENERAL ART AND DESIGN	
Art G.P. 113 — Orientation to Art and Design	0
Art G.P. 117 and 118 — Drawing I and II	6
Art G.P. 119 and 120 — Design I and II	6
Art G.P. 121 and 122 — Drawing Theory I and II	4
Art G.D. 120 — Visual Organization	3
Total	19

INDUSTRIAL DESIGN	
Art I.D. 133 — Design Workshop	2
Art I.D. 134 — Introduction to Industrial Design	3
Art I.D. 175 — Design Management and Methods	2
Art I.D. 271 and 272 — Materials and Processes I and II	6
Art I.D. 275 and 276 — Industrial Design I and II	6
Art I.D. 277 and 278 — Advanced Industrial Design	8
Art I.D. 280 — Professional Practices	2
Total	29

ELECTIVES

Technical electives from approved list, minimum 6
Art electives 6-10
General electives (see college list of approved electives) 11-15
Total 27

Technical Electives — HOURS

Adv. 281 — Introduction to Advertising 3
Any approved advertising course other than Adv. 199
Arch. 251 — Statics and Dynamics 4
Arch. 252 — Strength of Materials and Design Applications 4
Arch. 323 — Social and Behavioral Factors for Design 3
Any approved 200-level architecture course
B. Adm. 202 — Principles of Marketing 3
B. Adm. 210 — Management and Organizational Behavior, or B. Adm. 247 — Introduction to Management 3
B. Adm. 320 — Marketing Research 3
B. Adm. 344 — Buyer Behavior 3
B. Adm. 346 — Entrepreneurship: Small Business Formation 4
C.S. 101 — Introduction to Computers for Application to Engineering and Physical Science 3
C.S. 103 — Introduction to Computers and Their Application to Social and Behavioral Science . . . 3
L.A. 213 — People, Land, and Environment 2-3
Phycs. 140 — Practical Physics: How Things Work 3
Phycs. 141 — Special Problems (with Phycs. 140) 1
Phycs. 150 — Physics and the Modern World 3
Phycs. 151 — Special Problems (optional with Phycs. 150) 1
I.E. 305 — Principles of Ergonomics (listed also as Physl. 305 and P.E. 305) 4
Psych. 258 — Human Factors in Human-Machine Systems 3
Psych. 356 — Human Performance and Engineering Psychology 3
Any approved 200-level engineering course

CURRICULUM IN PAINTING

For the degree of Bachelor of Fine Arts in Painting

The curriculum in painting provides extensive training in preparation for professional practice as an artist.

The first year is devoted primarily to the study of design, composition, and the acquisition of both representational and abstract drawing skills. The second year concentrates on introducing the student to beginning painting skills and techniques with further studies in drawing and composition. The last two years are devoted to the development of individual creative expression in painting and other media.

When followed by a program leading to a degree of Master of Fine Arts in Painting, this curriculum is recommended as preparation for teaching painting and drawing and related subjects at the college level.

A total of 122 hours is required for this degree.

GENERAL REQUIREMENTS — HOURS

Rhet. 105 or 108 4
One approved sequence of 6 hours in each of the following areas: humanities, social sciences, and natural sciences 18
Total 22

ART HISTORY

Art Hi. 111 and 112 — Introduction to the History of Art 8
Advanced art history 6
Total 14

GENERAL ART AND DESIGN

Art G.P. 113 — Orientation to Art and Design 0
Art G.P. 117 and 118 — Drawing I and II 6
Art G.P. 119 and 120 — Design I and II 6
Art Pa. 125 and 126 — Life Drawing I and II 4
Art Pa. 225 and 226 — Intermediate Drawing 4
Total 20

PAINTING

The student must complete twelve courses in painting and composition to a minimum of 30 hours. Qualified students are encouraged to arrange special projects in conjunction with advisers. Painting and composition courses presently include:

Art Pa. 141 and 142 — Beginning Painting I and II 4
Art Pa. 143 and 144 — Painting Composition I and II 4
Art Pa. 231 and 232 — Intermediate Composition 6
Art Pa. 233 and 234 — Advanced Composition 6
Art Pa. 243 and 244 — Figure Painting 4
Art Pa. 245 and 246 — Advanced Painting and Drawing 6
Total 30

ELECTIVES

General electives (see college list of approved electives) 14-18
Professional electives (including one course in printmaking) 18-22
Total 36

CURRICULUM IN SCULPTURE

For the degree of Bachelor of Fine Arts in Sculpture

The curriculum in sculpture provides a broad and solid foundation in the fundamental disciplines of drawing, design, and painting, including both traditional and contemporary concepts. The learning of the time-honored techniques of sculpture such as modeling and carving is required, and experimentation with welding, metal casting, and plastics is fostered. The student is encouraged to experience a wide range of materials, techniques, methods, and styles.

A total of 122 semester hours is required for the degree.

GENERAL REQUIREMENTS — HOURS

Rhet. 105 or 108 4
One approved sequence of at least 6 hours in each of the following areas: humanities, natural sciences, and social sciences 18
Total 22

HISTORY OF ART

Art Hi. 111 and 112 — Introduction to the History of Art 8
Advanced art history 6
Total 14

GENERAL ART AND DESIGN

Art G.P. 113 — Orientation to Art and Design 0
Art G.P. 117 and 118 — Drawing I and II 6
Art G.P. 119 and 120 — Design I and II 6
Art Pa. 125 and 126 — Life Drawing I and II 4
Art Pa. 141 and 142 — Beginning Painting I and II 4
Art Cr. 160 — Jewelry I 2
Art Cr. 170 — Ceramics I 2
Total 24

SCULPTURE

The professional student must complete ten courses in sculpture to a minimum of 24 hours. Qualified students are encouraged to arrange special projects in conjunction with advisers. Sculpture courses presently include:

Art Sc. 151 and 152 — Sculpture I and II 4
Art Sc. 253 and 254 — Intermediate Sculpture 4
Art Sc. 255 and 256 — Sculpture Materials and Techniques 6
Art Sc. 257 and 258 — Advanced Sculpture 4
Art Sc. 259 and 260 — Advanced Sculpture Materials and Techniques 6
Total 24

ELECTIVES

General electives (see college list of approved electives) 20-24
Professional electives 14-18
Total 38

Department of Dance

The Department of Dance is an autonomous unit in the College of Fine and Applied Arts, and, as such, is unique within the state. The resident dance faculty of four full-time and five part-time members is augmented by visiting artists-in-residence on a continual basis. There are approximately forty undergraduate and twelve graduate students enrolled in the major program. The teaching staff also includes graduate teaching assistants who teach classes in modern, ballet, and jazz for nondance majors. Over 700 students are enrolled in these classes.

The program focus at the graduate and undergraduate levels is on professional preparation of performers, choreographers, and studio teachers. Two degree programs are offered, leading to the Bachelor of Fine Arts and Master of Fine Arts degrees. The department is primarily a modern dance department in terms of technical, choreographic, and performance focus. Ballet is offered as an integral component of training; classes in jazz and tap are also included in the major curriculum. Admission is by audition.

The Department of Dance is located in the Krannert Center for the Performing Arts and utilizes the exceptional performing and production resources of the center. Five department concerts per year are produced in the theatres of the Krannert center, including two concerts of student choreography. Numerous opportunities for performance exist with the Illinois Dance Theatre, in faculty and student concerts, and in musical and opera productions in the center.

CURRICULUM IN DANCE

For the degree of Bachelor of Fine Arts in Dance

The B.F.A. curriculum in dance is an intensive program of study for the dedicated student, offering concentration in the areas of technique, composition, and performance. The curriculum also includes requirements in production, improvisation, music theory and literature for dance, history, theory and philosophy, notation or movement theories, and repertory. Electives may be taken in ballet, modern, tap, and jazz; advanced improvisation; Labanotation, accompaniment; choreographer-composer workshop; and independent study.

Program requirements include core daily technique classes consisting of three modern and two ballet classes per week each semester in residence plus elective technique classes for a minimum of one additional credit hour per semester. Technique placement is assigned by the faculty, and majors must achieve the advanced technical level in modern or ballet for a minimum of two semesters prior to graduation. The improvisation/composition sequence consists of a minimum of 8 hours of studio courses culminating in the performance of a senior choreographic project. A minimum of 6 hours of credit is required in performance/repertory courses. The curriculum includes up to 23 hours of professional electives which may be taken in professional dance courses and/or related arts and sciences.

Evaluation of majors is an ongoing process. Continued enrollment in the program is contingent upon satisfactory performance. Students are expected to maintain a minimum 3.75 grade-point average in all professional course work and a 4.0 cumulative average in studio classes in order to remain in good standing in the department.

It is possible for transfer students to complete degree requirements in a three-year period contingent upon prior completion of general education requirements and the fulfillment of the advanced technique requirement for two semesters prior to graduation.

A total of 130 hours is required for this degree.

GENERAL EDUCATION	HOURS
Rhet. 105 or equivalent	4-6
Humanities sequence[1]	6
Social science sequence[1]	6
Natural science sequence	9
Physl. 103 Physl. 234	
Total	25-27

PROFESSIONAL COURSES IN DANCE

Technique . . . . . (minimum) 34

Dance 160/166 (3), 260/266 (3), 360/366 (3)
Four credit hours per semester.
To include core technique classes each semester in residence, consisting of three modern

and two ballet classes per week (3 hours credit), plus elective technique courses for a minimum of 1 additional credit hour per semester.

Improvisation 2
- Dance 162 — Improvisation I
- Dance 163 — Improvisation II

Composition 6
- Dance 164 — Beginning Composition
- Dance 264 — Intermediate Composition
- Dance 365 — Advanced Composition

Production 4
- Dance 131/331 — Production Practicum (1 hour per lab for a total of 4 hours)

Music for dance 6
- Dance 168 — Music Theory and Practice for Dance
- Dance 269 — Music Literature for Dance

Dance education 2-3

One of the following:
- Dance 243 — Creative Dance for Children
- Dance 351 — Independent Teaching Project

Orientation to dance 2
- Dance 150 — Orientation to Dance

Dance history 6
- Dance 340 — History of the Dance I
- Dance 341 — History of the Dance II

Repertory and performance 6
- Dance 130/330 — Performance Practicum (1-2 hours per dance)
- Dance 335 — Dance Repertory Workshop (up to 4 hours)

A total of 6 hours is required; at least 2 hours must be taken in 335.

Theory and philosophy of dance 3
- Dance 346 — Theory and Philosophy of Dance

Theories of movements/notation 3

One of the following:
- Dance 345 (3) Theories and Fundamentals of Movement
- Dance 347 (3 hours), Labanotation I

Total 74-75

ELECTIVES[2] 28-33

Recommended:

Additional courses in ballet and modern technique: 160, 166, 260, 266, 360, 366 (up to 16 additional hours may be counted toward degree requirements) ..... (per course) 1-2
Dance 130 — Performance Practicum[3] ..... (per dance) 1
Dance 250 — Dance Forms (including jazz and tap) ..... (per course) 1
Dance 328 — Choreographer-Composer Workshop 2
Dance 330 and 335 — Performance and repertory courses[3] ..... (per dance) 1-2
Dance 348 — Labanotation II 3
Dance 351 — Independent Study and Special Topics ..... (Up to) 8
Dance 363 — Improvisation III 1
Dance 369 — Accompaniment for Dance 1
Art & D. 140 — Introduction to Art[4] 3
Art & D. 180 — Introduction to Cinematography[4] 3
Music 158 — Group Piano for Non-Music Majors[4] 2
Music 181 — Voice[4] 2-3
Theat. 170 — Fundamentals of Acting[4] 3
Theat. 175 — Improvisation in Acting[4] 4
Theat. 291 — Costume Design for Dance 2
Theat. 332 — Stage Management 4
Theat. 340 — Lighting Design for Dance 4
Theat. 355 — History and Development of American Musical Theatre 3
Theat. 372 — Introduction to Theatre Management 3

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[1] Humanities and social science sequence: see College of Fine and Applied Arts approved sequences.

[2] A minimum of 10 hours of electives must be in the area of general electives (see College of Fine and Applied Arts approved list). A minimum of 5 hours must be in the area of professional electives. It is strongly recommended that dance majors consider professional electives outside the dance area itself.

[3] A maximum of 16 hours may be accumulated toward degree requirements in the Dance 130/330/335 courses.

[4] These courses will also fulfill the Fine and Applied Arts general electives requirements for dance majors.

Department of Landscape Architecture

The Department of Landscape Architecture offers a four-year undergraduate curriculum leading to the professional degree of Bachelor of Landscape Architecture and a graduate curriculum leading to the Master of Landscape Architecture.

The undergraduate curriculum is a balanced program of technical, design, and general education courses which equip the student with the necessary skills for professional practice in private offices or public agencies. The graduate curriculum offers advanced work and opportunities for specialization in selected areas toward potential careers in teaching, public service, or private practice.

Departmental headquarters and the library are located in Mumford Hall. Classrooms, studios, and offices are located in Mumford Hall and in 1203, 1205, and 1205½ West Nevada Street, Urbana.

CURRICULUM IN LANDSCAPE ARCHITECTURE

For the degree of Bachelor of Landscape Architecture

This curriculum requires 128 semester hours of credit for graduation.

FIRST YEAR FIRST SEMESTER	HOURS
L.A. 101 — Introduction to Landscape Architecture	2
L.A. 180 — General Drafting and Graphics	2
Geog. 103 — Earth's Physical System[3]	4
Rhet. 105 or 108 — Composition	4
Elective (general education sequence)[1]	3
Total	15

SECOND SEMESTER	HOURS
L.A. 181 — Visual Communications	3
Pl. Bio. 102 — Plant Biology	3
Math. 116 — Algebra and Trigonometry, or Math. 114 — Plane Trigonometry	2-5
Elective (general education sequence)[1]	3
L.A. 214 — History of Landscape Architecture	3
Total	14-17

SECOND YEAR

L.A. 133 — Landscape Design	5	L.A. 134 — Site Design	5
L.A. 150 — Landscape Surveys	3	L.A. 142 — Landform Design and Construction	3
Supporting elective[2]	3	Elective (general education sequence)[1]	3
Elective (general education sequence)[1]	3	Supporting elective[2]	6
U.P. 101 — Planning Cities and Regions	3		
Total	17	Total	17

THIRD YEAR

L.A. 235 — Recreational and Community Design	5	L.A. 236 — Design Workshops I	5
L.A. 243 — Site Engineering	4	L.A. 244 — Site Construction	4
L.A. 251 — Plant Materials and Design I	4	L.A. 252 — Plant Materials and Design II	4
Supporting elective[2]	3	Supporting elective	3
Total	16	Total	16

FOURTH YEAR

L.A. 253 — Planting Design	4	L.A. 246 — Professional Practice	1
L.A. 382 — Visual Communications II	3	L.A. 338 — Design Workshops II	5
L.A. 337 — Regional Landscape Design	5	Supporting elective[2]	3
Elective[2]	4	Electives	5-8
Total	16	Total	14-17

[1] A minimum of 6 credit hours of approved sequence courses is required in each of the areas of humanities, social sciences, and natural sciences for a minimum of 18 credit hours (see College of Fine and Applied Arts–approved general education sequences).

[2] A minimum total of 18 credit hours of professionally related courses selected from the recommended list of supporting electives is required, with a minimum of 3 credit hours in each of the categories of history, communications, techniques, and environment.

[3] Pl. Bio. 102 or Geog. 103 may be used as one of the two natural science (6 hours) sequence courses with the appropriate subsequent course (see College of Fine and Applied Arts–approved general education sequences).

A student must have and maintain a minimum 3.5 cumulative University of Illinois grade-point average and a minimum 3.5 grade-point average in all required landscape architecture courses to continue beyond the sophomore-level design year.

School of Music

All applicants for music curricula are required to satisfy a qualifying audition in the major performance area prior to approval for admission. In addition, applicants for music composition or history of music programs are required to submit original scores or other pertinent writings to substantiate their ability to pursue work in their chosen program of studies. Auditions are held on designated dates during the academic year.

Applicants who cannot appear in person may submit tape recordings and other required materials, but all are urged to complete the requirement as early as possible to expedite approval for admission. Each applicant must write to the director of the School of Music, University of Illinois at Urbana-Champaign, 3034 Music Building, 1114 West Nevada Street, Urbana, IL 61801, specifying his or her major performance area and curriculum, to make specific audition arrangements.

The School of Music offers a curriculum in music, with five options leading to the degree of Bachelor of Music, and a curriculum in music education with six areas of specialization, leading to the degree of Bachelor of Science in Music Education. A student enrolled in any applied music curriculum pursues throughout the four years of his or her course a major applied subject (such as piano, voice) in which two thirty-minute lessons a week are taken; and a minor or secondary applied subject for two years during which one thirty-minute lesson a week is taken. Students in composition and history of music must complete 16 hours in the major applied music subject. Public performance is a definite part of the training in applied music, and all students, when sufficiently advanced, are required to participate in student programs. As part of the requirements for the Bachelor of Music degree in applied music and composition, senior students must present a satisfactory public recital. Also available is an open-studies curriculum for students with other specialized musical interests, admission to which requires the recommendation of the School of Music faculty and approval by the College of Fine and Applied Arts. Requirements for the program may be obtained from the director of the School of Music.

A program in the College of Liberal Arts and Sciences leading to the Bachelor of Arts degree with a field of concentration in music is offered to qualified students. (See page 265.) Although students in this program are encouraged to pursue all phases of the study of music, including applied music (subject to appropriate auditioning procedures), the emphasis is on historical, cultural, and theoretical aspects of music rather than on professional training.

Applied music and courses in the history, theory, and appreciation of music are open to all qualified students in the University.

Graduate courses leading to the degree of Master of Music, Master of Science in Music Education, Advanced Certificate in Music Education, Doctor of Education in Music Education, Doctor of Philosophy in Musicology, and Doctor of Musical Arts in Composition, Choral Music, and Performance and Literature are offered under the regulations of the Graduate College.

The University Orchestras, University Bands, choral ensembles, jazz bands, and New Music Ensemble are open to qualified students from any college. The Oratorio Society, University Chorus, Opera Chorus, and certain other ensembles are also open to members of the faculty and staff and residents of the community who are admitted by audition or by permission of the respective conductors. All undergraduate music majors are required to enroll in at least one conducted ensemble each semester in residence. Students majoring in piano or organ may count up to 4 semesters of chamber music and/or accompanying toward the total requirement. A student may register for a maximum of two such courses concurrently and may use a maximum of 10 semester hours of ensemble credit to apply toward his or her degree.

The faculty and students of the School of Music present approximately 350 concerts and recitals throughout the year. Faculty artists and student ensembles are available for off-campus performances through the Office of Continuing Education and Public Service in Music, 608 South Mathews Avenue, Urbana, IL 61801.

The School of Music occupies the Music Building, Tina Weedon Smith Memorial Hall, and space in the Krannert Center for the Performing Arts. The facilities are equipped extensively with classrooms, studios, practice rooms, experimental-electronic music laboratories, musical instruments and audio equipment, and several auditoria designed for public recitals and concerts.

CURRICULUM IN MUSIC

For the degree of Bachelor of Music

This curriculum requires 130 semester hours of credit for graduation.

The general education sequence requirements in the humanities, social sciences, and natural sciences and electives must be met from the college elective and general education sequence lists starting on page 210.

Instrumental Music Major

The instrumental major may be taken in piano, organ, harpsichord, violin, viola, violoncello, string bass, flute, clarinet, oboe, bassoon, euphonium, saxophone, cornet or trumpet, french horn, trombone, tuba, percussion, or harp.

A student enrolled in this program takes two applied subjects, one a major (32 hours) and the other a minor (8 hours).

Juniors and seniors must present satisfactory public recitals as part of the requirements for the Bachelor of Music degree.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Major applied music subject[5]	4	Major applied music subject[4]	4
Minor applied music subject	2	Minor applied music subject	2
Music 101 — Fundamentals of Music Theory and Practice I	3	Music 102 — Fundamentals of Music Theory and Practice II	3
Music 110 — Basic Music Literature	2	Music 107 — Aural Skills I	1
Rhet. 105 or 108, or Sp. Com. 111 — Verbal Communication	3-4	Elective or Sp. Com. 112 — Verbal Communication	2-3
Total	14-15	Elective	2
		Total	14-15
SECOND YEAR			
Major applied music subject[4]	4	Major applied music subject[4]	4
Minor applied music subject	2	Minor applied music subject	2
Music 103 — Fundamentals of Music Theory and Practice III	3	Music 104 — Fundamentals of Music Theory and Practice IV	3
Music 108 — Aural Skills II	1	Music 109 — Aural Skills III	1
Music 213 — History of Music I	3	Music 214 — History of Music II	3
Foreign language	4	Foreign language	4
Total	17	Total	17
THIRD YEAR			
History of music[1]	3	History of music[1]	3
Major applied music subject[4]	4	Major applied music subject[4]	4
Theory of music[3]	3	Theory of music[3]	3
Music ensemble	1	Music ensemble	1
Electives	6	Electives	6
Total	17	Total	17
FOURTH YEAR			
Major applied music subject[4]	4	Major applied music subject[4]	4
Music 330 or 331 — Applied Music Pedagogy or Piano Pedagogy I (piano and string majors only)[2]	2	Music 330 or 332 — Applied Music Pedagogy or Piano Pedagogy II (piano and string majors only)[2]	2
Music ensemble	1	Music ensemble	1
Elective	3	Electives	5
Electives or professional electives	6	Electives or professional electives	5
Total	16	Total	17

[1] To be chosen from Music 310, 311, 312, 313, 314, 315, 317, 333, 334, 335, 336, or 337.

[2] String majors will register into Music 330; piano majors will register into Music 331 and 332.

[3] The music theory requirement for the junior year is to be satisfied by Music 300 and 308, 3 hours each, or by Music 308, 6 hours, with each semester devoted to a specifically listed topic.

[4] String majors would register for Music 269 concurrently with the major applied music subject (3 hours), a minimum of 6 semester hours to be required in fulfillment of degree requirements.

[5] Concurrent registration in Music 250 is required for all students who register for Music 183-186 and 383-386.

Music Composition Major

Within this program, major emphasis may be placed on the theory of music. Necessary course adjustments require approval of the theory division.

Seniors must present a satisfactory recital of original compositions as part of the requirements for the Bachelor of Music degree. If the major is theory, an advanced project determined and approved by the theory division is required.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Applied music[1]	2	Applied music	2
Music 101 — Fundamentals of Music Theory and Practice I	3	Music 102 — Fundamentals of Music Theory and Practice II	3
Music 106 — Beginning Composition	2	Music 107 — Aural Skills I	1
Music 110 — Basic Music Literature	2	Elective or Sp. Com. 112 — Verbal Communication	3-4
Rhet. 105 or 108, or Sp. Com. 111 — Verbal Communication	3-4	Elective	3
Elective	3	Music 106 — Beginning Composition	2
Total	15-16	Total	14-15
SECOND YEAR			
Applied music	2	Applied music	2
Music 103 — Fundamentals of Music Theory and Practice III	3	Music 104 — Fundamentals of Music Theory and Practice IV	3
Music 206[3] — Intermediate Composition	2	Music 206[3] — Intermediate Composition	2
Music 204[3] — Compositional Problems: Serial Techniques	2	Music 205[3] — Compositional Problems: Technological and Visual Aspects	2
Music 108 — Aural Skills II	1	Music 109 — Aural Skills III	1
Music 213 — History of Music I	3	Music 214 — History of Music II	3
French, German, or Italian	4	French, German, or Italian	4
Total	17	Total	17
THIRD YEAR			
Applied music	2	Applied music	2
History of music[2]	3	History of music[2]	3
Music 200 — Instrumentation I	2	Music 201 — Instrumentation II	2
Theory of music[3]	3	Theory of music[3]	3
Music 306[3] — Composition	3	Music 306[3] — Composition	3
Music ensemble	1	Music ensemble	1
Elective	4	Elective	4
Total	18	Total	18
FOURTH YEAR			
Applied music	2	Applied music	2
Music 302 — Music Acoustics	3	Music 306[3] — Composition	3
Music 306[3] — Composition	3	Music 320[3] — Proseminar	2
Music 320[3] — Proseminar	2	Music 315 — Music of the Twentieth Century	3
Music ensemble	1	Music ensemble	1
Electives	6	Elective	4
Total	17	Elective or professional elective	2
		Total	17

[1] Whether or not piano has been the applied music subject, the student must acquire a thorough practical knowledge of the pianoforte.

[2] To be chosen from Music 310, 311, 312, 313, 314, 315, 317, 333, 334, 335, 336, or 337.

[3] The music theory requirement for the junior year may be satisfied by two courses chosen from Music 300, 307, and 308 (308 may be repeated). If the curricular emphasis is in music theory, the following will apply: sophomores will take only two composition courses chosen from Music 204, 205, or 206 (206 may be repeated) and 4 or 6 hours in electives; juniors will take Music 300, 307, and two semesters of 308 (Music 306 will not be required); seniors will take Music 229, 301, 305, and a 300-level music history course (Music 306 and 320 will not be required.).

History of Music Major

The curriculum in the history of music offers a broad cultural education which unites academic and musical training. It provides sound preparation for the graduate study required for research and teaching in musicology or ethnomusicology.

Whether or not piano has been the applied music subject, the student must demonstrate reasonable facility in piano by the end of the sophomore year.

Seniors, working with an adviser, must complete a satisfactory thesis as part of the requirement for the Bachelor of Music degree.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Applied music	2	Applied music	2
Music 101	3	Music 102	3
Music 110	2	Music 107	1
Rhet. 105 or 108, or Sp. Comm. 111	4-3	Elective or Sp. Comm. 112	2-3
General education sequence[1]	3	General education sequence[1]	3
Elective	2	Elective	3
Total	16-15	Total	14-15
SECOND YEAR			
Applied music	2	Applied music	2
Music ensemble	1	Music ensemble	1
Music 103	3	Music 104	3
Music 108	1	Music 109	1
Music 213	3	Music 214	3
French or German[2]	4	French or German[2]	4
General education sequence[1]	3	General education sequence[1]	3
Total	17	Total	17
THIRD YEAR			
Applied music	2	Applied music	2
History of music[3]	3	History of music[3]	3
Music 300	3	Music 308	3
French or German[2]	4	French or German[2]	4
Literature[4]	3	Literature[4]	3
General education sequence[1]	3	General education sequence[1]	3
Total	18	Total	18
FOURTH YEAR			
Applied music	2	Applied music	2
Music ensemble	1	Music ensemble	1
History of music[3]	3	History of music[3]	3
Music 229 — Thesis	2	Music 229 — Thesis	2
Music theory[5]	2-3	Music theory[5]	2-3
History[6]	3	History[6]	3
Elective	1-2	Elective	1-2
Total	15-16	Total	15-16

[1] A minimum of 6 hours each in the humanities, the social sciences, and the natural sciences is required for graduation. See the section on Electives and General Education Sequence Requirements for the College of Fine and Applied Arts.

[2] Two years in one language are required except with special permission of adviser.

[3] Third- and fourth-year music history courses are to be chosen from Music 310, 311, 312, 313, 314, 315, 317, 318, 319, 333, 334, 335, 336, 337; however, a minimum of two courses must be chosen from Music 310 through 315.

[4] May not be used to satisfy general education sequence.

[5] To be chosen from Music 306, 307, 308.

[6] May not be used to satisfy general education sequence.

Voice Major

The major applied-music subject throughout the course includes work in vocal diction as well as private lessons in voice. At least 8 hours each in Italian, French, and German are required for the voice major. A student who has not completed two years of one of these languages in high school should begin his or her study of languages during the freshman year.

Juniors and seniors must present satisfactory public recitals as part of the requirement for the Bachelor of Music degree.

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Music 101 — Fundamentals of Music Theory and Practice I	3	Music 102 — Fundamentals of Music Theory and Practice II	3
Music 110 — Basic Music Literature	2	Music 107 — Aural Skills I	1
Music 166 — English Diction, or Music 167 — Italian Diction	1	Music 166 — English Diction, or Music 167 — Italian Diction	1
Piano	2	Piano	2
Music 181 — Voice	3	Music 181 — Voice	3
Rhet. 105 or 108, or Sp. Com. 111 — Verbal Communication	3-4	Elective or Sp. Com. 113 — Verbal Communication	2-3
Total	14-15	Elective	2
		Total	14-15

SECOND YEAR

Music 103 — Fundamentals of Music Theory and Practice III	3
Music 108 — Aural Skills II	1
Music 168 — German Diction, or Music 169 — French Diction	1
Piano	2
Music 181 — Voice	3
Music 213 — History of Music I	3
Foreign language	4
Total	17

Music 104 — Fundamentals of Music Theory and Practice IV	3
Music 109 — Aural Skills III	1
Music 168 — German Diction, or Music 169 — French Diction	1
Piano	2
Music 181 — Voice	3
Music 214 — History of Music II	3
Foreign language	4
Total	17

THIRD YEAR

History of music[1]	3
Music ensemble	1
Theory of music[2]	3
Music 366 — Vocal Repertoire I	1
Music 381 — Voice	3
Foreign language	4
Elective	3
Total	18

History of music[1]	3
Music ensemble	1
Theory of music[2]	3
Music 367 — Vocal Repertoire II	1
Music 381 — Voice	3
Foreign language	4
Elective	3
Total	18

FOURTH YEAR

Music ensemble	1
Music 330 — Applied Music Pedagogy	2
Music 381 — Voice	3
Electives	6
Electives or professional electives	4
Total	16

Music ensemble	1
Music 330 — Applied Music Pedagogy	2
Music 381 — Voice	3
Electives	6
Elective or professional elective	3
Total	15

[1] To be chosen from Music 310, 311, 312, 313, 314, 315, 317, 333, 334, 335, 336, or 337.
[2] The music theory requirement for the junior year is to be satisfied by Music 300 and 308, 3 hours each, or by Music 308, 6 hours, with each semester devoted to a specifically listed topic.

CURRICULUM IN MUSIC EDUCATION

For the degree of Bachelor of Science in Music Education[1]

A minimum of 130 hours of credit is required for graduation. This curriculum prepares its graduates for teaching music in grades K through 12. For teacher education requirements applicable to all curricula, see pages 87 to 91.

GENERAL EDUCATION COMPONENT	HOURS
Verbal communication (Sp. Comm. 111 and 112 plus American or English literature, or Rhet. 105 or 108, a performance-based speech course, plus American or English literature)	9
Psychology	3
Approved natural science sequence	6
Approved humanities sequence	6
Approved social science sequence	6
Physical education activities and/or health	3
Total	33

PROFESSIONAL AND/OR GENERAL ELECTIVES	13

BASIC MUSICIANSHIP COMPONENT

Applied major	12
Music theory, sightsinging, & eartraining	15
Music history and literature	8
Ensembles	4
Total	39

EDUCATION COMPONENT

History and/or philosophy of education	2
Child growth and development	3
Total	5

PROFESSIONAL COMPONENT	40

Students must select one of the areas of professional specialization, which include Choral Specialization, Comprehensive Preparation, Elementary–General Specialization, Instrumental Specialization, Piano Pedagogy Specialization, and String Specialization.

EDUCATIONAL PRACTICE[2]

Introduction to teaching	2
Techniques of teaching	3
Preclinical experiences	2
Student teaching[3]	8-16
Total	15

[1] Students are advised that certification requirements may be altered at any time by the State Teacher Certification Board or the legislature. In such cases, students may be compelled to satisfy the new requirements to qualify for the University's Recommendation for Certification.

[2] If public school certification is not desired, the student selects 13 hours in consultation with his or her adviser, 7 hours of which must be from the student's applied major, music theory, or music history.

[3] Only 8 hours of student teaching apply toward the 130 hours needed for graduation.

Department of Theatre

The curricular options in the Department of Theatre provide intensive and extensive preparation for the rigorous demands of a professional career in the theatre. A strong commitment to work in the theatre and a realistic understanding of its intellectual, aesthetic, and physical requirements is therefore necessary in students who enter the department's program.

Before acceptance in the undergraduate programs in theatre, applicants must participate in Preadmission Clinics, which take place in the Krannert Center for the Performing Arts on five or more weekends of each year. The clinics afford the faculty an opportunity to explain the nature of the study programs and to audition or interview candidates for admission. Those interested in studying acting prepare a four-minute audition, composed of at least two pieces from dramatic works; those interested in design, management, directing, technical theatre, or playwriting present a portfolio of previously accomplished work in theatrical production.

Three study curricula, or options, are offered after the satisfactory completion of the first-year program required of all students. The Applied Theatre Curriculum is meant for students in general theatre studies and for students who intend to pursue advanced professional training in directing, children's theatre, playwriting, theatre history, and criticism. The programs in acting and in theatre design, technology, and management are meant for those students who, in the judgment of the faculty, are ready to master those specialties in an intensive undergraduate program.

The Department of Theatre is one of the resident producing organizations of the Krannert Center for the Performing Arts, in which it presents fourteen productions annually during the regular academic year and a repertory season in the summer. The theatres and workshops of the Krannert Center serve as laboratories for theatre students, who have the opportunity to learn and to work alongside an outstanding staff of theatre professionals in preparing performances in theatre, opera, dance, and Kabuki.

CURRICULUM IN THEATRE

For the degree of Bachelor of Fine Arts in Theatre

A minimum of 128 hours of credit is required for the degree.

First-Year Program for All Theatre Curricula

FIRST YEAR FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Theat. 106 — Basic Practice I	6	Theat. 107 — Basic Practice II	6
Theat. 108 — Basic Practice Lab	2	Theat. 108 — Basic Practice Lab	2
Theat. 109 — Dramatic Form/Content	3	Theat. 110 — Literature of Modern Theatre	3
Rhet. 105 or 108 — Composition	4	General education sequence	6
General education sequence	3	Total	17
Total	18		

Students who satisfactorily complete this program will, in consultation with the theatre faculty, determine the appropriate registration in one of the three curricula which follow.

Applied Theatre Curriculum

Students wishing to prepare for advanced professional training in directing, playwriting, or children's theatre (Option A) or general studies or history and criticism (Option B) will study

in the curriculum after satisfactorily completing the first-year program. They must be admitted to the curriculum by the faculty director of a particular option and file with the department a program of study which shows how they will meet the general and specific requirements of the option. Requirements include: (a) residence at the University during the last 60 hours of the program and (b) enrollment for at least 6 hours in department courses during each semester of residence. The specific course requirements of each option must be completed (see below). Students in both options will complete satisfactorily the production assignments made by the Illinois Repertory Theatre.

GENERAL REQUIREMENTS	HOURS
Rhetoric	4
General education sequences	
Natural science sequence	6
Humanities sequence	6
Social science sequence	6
General electives	16
General and/or professional electives	35-37
Total	73-75

REQUIRED THEATRE CREDITS

For all options:	
Specified first-year theatre courses (see first-year program)	22

Option A: Directing, Playwriting, or Children's Theatre

Theat. 175 — Improvisation in Acting	4
Theat. 176 — Relationships in Acting	4
Theat. 199 — Playwriting	3
Theat. 281 — Directing: Script Preparation	3
Theat. 332 — Stage Management	2
Theat. 353 or 354 — Creative Dramatics for Children, or Theatre for the Child Audience	3
Theat. 361, 362 — Development of Theatrical Forms I, II	8
Theat. 381 — Directing: Rehearsal, or Theat. 375 — Acting the Period Play (twice)	6
Total	33

Option B: General Studies or History/Criticism

Theat. 175 — Improvisation in Acting	4
Theat. 176 — Relationships in Acting	4
Theat. 199 — Playwriting	3
Theat. 281 — Directing: Script Preparation	3
Theat. 300 — Practicum II	3
Theat. 353 or 354 — Creative Dramatics for Children, or Theatre for the Child Audience	3
Theat. 361, 362 — Development of Theatrical Forms I, II	8
Theat. 291, 292 — Individual Topics	4
Total	32

Note: Total hours in theatre courses can vary with faculty approval since certain offerings provide variable credit, e.g., practicum, internship.

Professional Studio in Acting

Students intending careers as professional actors are selected by audition for the Professional Studio in Acting after successful completion of the first-year program for all theatre curricula or its equivalent. Criteria for selection include potential for professional-calibre performance, commitment to theatre, the necessary discipline for intensive study, and agreement to complete the three-year curriculum.

Each semester the acting studio member will be required to complete satisfactorily production crew assignments with the Illinois Repertory Theatre. It is assumed that the student will audition for Illinois Repertory Theatre productions and play one role each semester if cast. The student must be cast in at least one production each year to continue in the Professional Studio in Acting.

GENERAL REQUIREMENTS	HOURS
Rhetoric	4
General education sequences	
Natural science sequence	6
Humanities sequence	6
Social science sequence	6

General electives 12
General and/or professional electives 16
Total 50

REQUIRED THEATRE CREDITS

Specified first-year theatre courses (see first-year program) 22
Theat. 151 — Acting Studio I: Improvisation 8
Theat. 152 — Acting Studio II: One-Act Plays 8
Theat. 253 — Acting Studio III: Musical Theatre 8
Theat. 254 — Acting Studio IV: Modern U.S. Drama 8
Theat. 255 — Acting Studio V: Shakespeare 8
Theat. 256 — Acting Studio VI: Acting for the Camera 8
Theat. 361, 362 — Development of Theatrical Forms I, II 8
Total 78

Division of Design, Technology, and Management

Students intending careers in professional theatre design, technology, or management are selected for the Division of Design, Technology, and Management at the sophomore level. To be accepted into this curriculum, a candidate must have completed the first-year program or its equivalent. Criteria for selection to, and continuance in, the division include significant artistic progress, potential for professional calibre work, commitment to theatre, and the necessary discipline for intensive study and practice. In each semester, the student will be required to complete satisfactorily production assignments with the Illinois Repertory Theatre.

GENERAL REQUIREMENTS **HOURS**

Rhetoric 4
General education sequences
  Natural science sequence 6
  Humanities 6
  Social science sequence 6
General electives 9
General and/or professional electives (Art 121, 122 recommended) 21-36
Total 52-67

REQUIRED THEATRE CREDITS

For all options:
  Specified first-year theatre courses (see first-year program) 22
  Theat. 361, 362 — Development of Theatrical Forms I, II 8

Scene Design Option

Theat. 225, 226, 325, 326, 327, 328 — Scene Design I, VI 22
Theat. 223 — Stage Mechanics I 4
Theat. 231 — Stage Lighting Practice 3
Theat. 245 — Introduction to Costume Design 3
Theat. 335 — History of Decor for the Stage 3
Theat. 336 — History of Scene Design 3
Theat. 337 — Scene Painting Techniques 2
Theat. 338 — Rendering Techniques for the Stage 2
Theat. 339 — Property Design 2
Total 44

Costume Design and Construction Option

Theat. 242 — Introduction to Costume Patterning 3
Theat. 245 — Introduction to Costume Design 3
Theat. 231 — Stage Lighting Practice 3
Theat. 322 — Scene Design for Nonmajors 3
Theat. 335 — History of Decor for the Stage 3
Theat. 342 — Costume Patterning 3
Theat. 345, 346 — Costume History for the Stage I, II 8
Theat. 347 — Costume Rendering 3
Theat. 227, 228 — Senior Projects in Design I, II 12
Total 41

Theatre Technology Option

Theat. 199 — Undergraduate Open Seminar 6
Theat. 210 — Stage Electronics 3
Theat. 223 — Stage Mechanics I 4
Theat. 224 — Stage Mechanics II 4
Theat. 225 — Scene Design I 3
Theat. 230 — Technical Direction 2

Theat. 231 — Stage Lighting I 3
Theat. 233 — Stage Drafting I 4
Theat. 310 — Theatre Planning 3
Theat. 323 — Stage Mechanics III 2
Theat. 324 — Stage Mechanics IV 2
Theat. 331 — Theatre Sound 3
Theat. 332 — Stage Management 4
Theat. 337 — Scene Painting 2
Theat. 340 — Lighting Design for Dance 3
Total 48

Stage and Theatre Management Option

Theat. 100 — Practicum I 3
Theat. 230 — Technical Direction 2
Theat. 231 — Stage Lighting Practice 3
Theat. 281 — Direction: Script Preparation 3
Theat. 322 — Scene Design for Nonmajors 3
Theat. 332 — Stage Management 4
Theat. 345, 356 — Costume History for the Stage I, II 8
Theat. 372 — Introduction to Theatre Management 3
Total 29

Department of Urban and Regional Planning

The Department of Urban and Regional Planning offers a program leading to the degree of Bachelor of Arts in Urban Planning. Urban planning gives practical expression to human values. Its aim is to sustain and enhance the quality of life in cities and regions, to create the good society. Therefore, in addition to special technical skills, each student is helped to acquire a broad liberal education that leads to an understanding of the natural and social environments, their problems, and their potentialities for enriching human life. Pathways in undergraduate planning education lead to diverse careers through professional employment or graduate study in urban planning or related professions.

For freshman admission to the Department of Urban and Regional Planning, a student must complete high school requirements listed on page 13. A transfer student will be admitted with 30 or more semester hours of acceptable undergraduate college work with an earned grade-point average of at least 4.0 (A = 5.0). Applicants not meeting these requirements will be considered in special cases.

The department's administrative offices are at 1003 West Nevada Street, Urbana. Classrooms and workshop space are located at 907, 909, and 1001 West Nevada Street and 901 West Illinois Street. The City Planning and Landscape Architecture Library is in Mumford Hall.

The Department of Urban and Regional Planning also offers a program of graduate studies leading to the Master of Urban Planning degree, joint degree programs with a Master of Architecture or a Juris Doctor degree, and the Ph.D. in Regional Planning. The Bureau of Urban and Regional Planning Research, a unit within the department, provides a vehicle for the involvement of both faculty and students in a wide range of research projects, continuing education programs, community service activities, and publication projects.

CURRICULUM IN URBAN AND REGIONAL PLANNING

For the degree of Bachelor of Arts in Urban Planning

A total of 120 hours is required for this degree.

FIRST AND SECOND YEARS

Minimum of 60 hours, consisting of the following:

Rhet. 105 or equivalent.

A two-course sequence (6 semester hours minimum) each in the humanities, natural sciences, and social sciences.

An introductory course each in economics, sociology, and political science.

Appropriate electives with no more than 20 semester hours in any one discipline, including the above.

THIRD YEAR FIRST SEMESTER	HOURS
U.P. 101 — Planning of Cities and Regions	3
U.P. 260 — Urban Social Problems and Planning, or U.P. 240 — Land Use Planning Process	3
Quantitative methods[1]	3
Urban planning elective[2]	3
Urban studies elective[3]	3
Total	15

SECOND SEMESTER	HOURS
U.P. 247 — Planning Workshop I	6
Urban planning elective[2]	3
Urban studies elective[3]	3
General elective[4]	3
Total	15

FOURTH YEAR	
Urban planning electives[2]	6
Urban studies electives[3]	6
General elective[4]	3
Total	15

U.P. 301 — Development of American Planning Thought, or U.P. 304 — Urban Planning Theory	3
Urban planning electives[2]	6
Urban studies elective[3]	3
General elective[4]	3
Total	15

[1] Soc. 185 or other statistics course, subject to approval of departmental adviser.

[2] Eighteen hours of elective courses within the Department of Urban and Regional Planning are to be selected from, but not limited to, the list below:

U.P. 199 — Undergraduate Open Seminar	1-5
U.P. 230 — Introduction to Transportation	3
U.P. 290 — Planning Internship	0-6
U.P. 297 — Special Problems	2-6
U.P. 303 — Urban Structure and Functions	3
U.P. 307 — Managing Urban Development	3
U.P. 308 — Law and Planning Implementation	3
U.P. 312 — Graphics and Communication for Planners	3
U.P. 315 — Legal Basis for Governmental Planning	3
U.P. 316 — Planning Analysis	3
U.P. 320 — Planning for Historic Preservation	3
U.P. 326 — Urban Design and Planning Methods	3
U.P. 332 — Introduction to Transportation Planning	3
U.P. 345 — Urban Economic Development and Fiscal Packaging	3
U.P. 350 — Survey of Regional Planning	3
U.P. 360 — Introduction to Social Planning	3
U.P. 374 — Neighborhood Planning	3
U.P. 394 — Special Topics in Urban and Regional Planning	3
U.P. 3XX — Planning Workshop (such as U.P. 327, U.P. 337, U.P. 347, U.P. 348, U.P. 358, U.P. 377, U.P. 378)	6

[3] Fifteen hours of urban studies elective courses are required, in addition to introductory courses listed under the first two years, with approval of departmental adviser. (Suggested urban studies courses include, but are not limited to, Arch. 317, 318, 323, 379; Econ. 360; Fin. 264, 365; Geog. 204, 277, 373, 378, 383, 384, 385; Pol. S. 250, 305, 306, 353, 361; Soc. 223, 225, 275, 276. Additional urban planning courses, in excess of the 33 hours required, may be applied toward the urban studies requirement.)

[4] General electives as needed to complete the total hours required are to be selected from the approved college list. Excess urban planning and/or urban studies courses may be applied toward this requirement.

TEACHER EDUCATION MINOR IN URBAN STUDIES

Students electing the urban studies minor must consult with the head of the Department of Urban and Regional Planning.

A minimum of 21 hours of course work in urban and regional planning and urban studies (approved urban studies courses listed above) is required for the completion of this minor. Two courses must be selected from the following: U.P. 301, U.P. 304, U.P. 360 (or equivalents should these courses be unavailable in a given year).

College of Liberal Arts and Sciences

270 Lincoln Hall, 702 South Wright Street, Urbana, IL 61801

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The College of Liberal Arts and Sciences has four missions: scholarly inquiry and the generation of knowledge, preparation of individuals for an array of careers and professions, service to the public, and the provision of the intellectual core of the University. The college shares the first three missions with professional schools and other colleges on this campus, but the last mission is uniquely the responsibility of the College of Liberal Arts and Sciences. Fulfillment of that responsibility yields a diversified college uniquely valuable in contributing to the development of broadly educated individuals committed to or characterized by open inquiry, critical thinking, effective communication, and responsiveness to the needs of individuals and society.

The College of Liberal Arts and Sciences is the largest individual college within a university setting in the state of Illinois. The college offers sixty-nine undergraduate and ninety-four graduate degree-granting programs and enrolls over 40 percent of the undergraduates on this campus. The college serves the entire campus by providing a full range of required general education and service courses in basic disciplines.

Students in the college are expected to understand the content and develop

skills in areas that reflect the overall purpose of the college: fluency and facility in English; literacy in at least one foreign language; broad exposure to a number of different disciplines; and intensive study in one discipline (or an interdisciplinary program). Students have a wide choice of courses to satisfy these requirements; however, ultimately they must plan a diverse and intensive program of study, prepare for an occupational/professional and intellectual future, and develop that clarity and range of mind which is the goal of educated people.

DEGREE PROGRAMS AVAILABLE

The following degree programs are available in the College of Liberal Arts and Sciences.

Sciences and Letters Curriculum. The Sciences and Letters Curriculum comprises all of the traditional programs in the liberal arts and sciences. The curriculum requires in-depth study in one field of concentration as well as substantial experience in a number of other areas. A description of the components of the curriculum may be found beginning on page 242. The fields of concentration are:

Actuarial science
Anthropology
Art history
Asian studies
Astronomy
Chemistry
Classics (including Greek and Latin)
Comparative literature
Economics
English
Finance
French
Geography
Geology
Germanic languages and literature (including Scandinavian studies)
History
Humanities — Options in American civilization, cinema studies, history and philosophy of science, medieval civilization, Renaissance studies
Individual Plans of Study (IPS)
Italian
Latin American studies
Life sciences — Options in anatomical sciences; bioengineering; biophysics; ecology, ethology, and evolution; entomology; general biology; honors biology; microbiology; physiology; plant biology
Linguistics
Mathematics
Mathematics and computer science
Music
Philosophy
Physics
Political science
Portuguese
Psychology
Religious studies
Rhetoric
Russian
Russian and East European studies
Sociology
Spanish
Speech and hearing science
Speech communication
Statistics

Specialized Curricula. Specialized curricula are prescriptive programs that are offered as preprofessional study or preparation for graduate pursuits. These curricula include the teacher education curricula that lead to bachelor's degrees and state certificates for teaching. Although many of the general college requirements are similar to those in the sciences and letters concentrations, there are slight variations among them. The curricula are:

Biochemistry
Chemical engineering
Chemistry
Geology
Physics
Speech and hearing science (B.S.)

TEACHER EDUCATION (Secondary)

Biology
Chemistry
Computer science
Earth science
English
French
German
Latin
Mathematics
Physics
Russian
Social studies
Spanish
Speech
Combined Sciences and Letters–Teaching of Mathematics

ADMISSION REQUIREMENTS

The general admission requirements and procedures of the College of Liberal Arts and Sciences are outlined in the admissions section (see page 13). These requirements were established to enable students admitted here to make the most effective use of the facilities of the University. The requirements should ensure that entering students have the capability of completing a degree program successfully.

While the admissions patterns or high school subjects required for admission are *necessary* for the student to be able to compete successfully at this University, there are several other strong recommendations for high school subject requirements. All prospective freshmen are encouraged to seek a broad preparation in their secondary school program. Students should continue electing academic subjects in their senior year; in particular, students are encouraged to elect four full years of English in high school. Although mathematics is not required in all programs in the college, many programs do require that students take some mathematics; thus high school students should elect at least two years of algebra, one year of geometry, and one year of college preparatory mathematics. A solid foundation in mathematics will assist a student in taking full advantage of educational opportunities at the University. Some knowledge of science is necessary in our technology-oriented society; students should elect at least two years of laboratory science in high school. Successful completion of four years of a single foreign language in secondary school will satisfy the college foreign language degree requirement; thus students will find it advantageous to include as much foreign language in their secondary school program as possible.

Prospective students should note that the College of Liberal Arts and Sciences has increased the requirements in the high school subject patterns for admission beginning with admissions for spring 1986. The admissions section (see page 13) reflects current admissions requirements.

ADVISING

Academic advising is a critical resource for students in developing a program of study. Especially on a large campus, a continuing, committed association with a faculty member can be a valuable and rewarding part of the student's educational experience. Advisers are available to aid students in choosing a field of concentration, planning for career choices, and selecting courses for each semester. *All* students in degree programs in the college do have academic advisers available in their major department. In addition, the assistant and associate deans in the college assist students in handling a variety of problems and questions.

In order to simplify minor changes in course selections, students who have successfully completed at least 30 semester hours of course work and who understand college/university requirements may choose courses without obtaining approval from an academic adviser unless informed otherwise by the college. Students *do* need to obtain approval from an adviser for a number of arrangements, including a formal plan of study for concentration and the election of the credit–no credit grading option. Students may be requested by the college office to obtain adviser's/dean's approval for all course changes under certain circumstances. It is very important for advanced students to confer with an adviser on a regular basis; therefore, the college encourages all students to consult with their academic adviser at least once each year.

One particular resource for students of the college who have not decided on a plan of study is the ***General Curriculum.*** The General Curriculum is an advising center for students who want to investigate a variety of subjects before selecting a major or who have decided on a program that requires transfer at a sophomore or junior level. General Curriculum is not a degree program and does not serve as a formal program of study. Entering freshmen and continuing students with less than 45 semester hours may elect to enter the General Curriculum and may remain in the program until they complete 56 academic semester hours. The office provides individual advising; group orientation sessions; and printed materials describing fields of concentration, curricula, and many career opportunities. Students in the General Curriculum are LAS students and must follow LAS policies and regulations. The General Curriculum office serves as the college office for students in the program.

Another special resource in the college is qualified advising for students who are interested in law school. An assistant dean in the college office (270 Lincoln Hall) counsels students who have declared a pre-law interest. All such students are encouraged to consult the pre-law adviser. Students preparing for law school may elect *any* field of concentration; they need not

consider themselves restricted in a choice of degree program. To assist students planning pre-law programs, a faculty committee in the college has prepared a handbook for students on pre-law advising. For further information, contact the pre-law adviser at 270 Lincoln Hall.

HONORS PROGRAMS

Dean's List

Each semester, students are recognized by the college for placement on the Dean's List. Those students are eligible who meet the following criteria and are in the top 20 percent of their classes. Students must carry at least 9 hours of traditionally graded courses to be eligible. Course work graded credit–no credit, satisfactory–unsatisfactory, or course work taken for graduate credit is excluded from the 9 hour minimum. Students with work graded Excused or Deferred are not considered for the Dean's List until grades have been submitted for that work. These students should notify the honors dean when such work is complete if they expect to be placed on the Dean's List.

James Scholar Program

The official honors program in the College of Liberal Arts and Sciences is called the Edmund J. James Scholar Program. This program allows students with exceptional ability to pursue a rigorous academic course of study and provides the opportunity for those students to meet with faculty who are particularly interested in honors programs. There are honors advisers available in the respective departments and an honors dean in the college office. James Scholars register in some special honors courses, sections, seminars, and colloquia; they may also arrange individualized honors credit agreements for specific courses. James Scholars have open access to the University Library stacks (ordinarily open only to graduate students and faculty); such access to library stacks is particularly helpful for students involved in independent study and/or undergraduate research projects. James Scholars also have their program requests scheduled early to minimize conflicts in getting honors courses.

Any qualified LAS student may become a James Scholar Designate or Nominee. Entering freshmen who are in the top 15 percent of the admitted class are invited immediately into the program as James Scholar Designates. Continuing students in the college must maintain a cumulative grade-point average of 4.5 and must complete two honors courses during the academic year. In order to remain in the program as a James Scholar Nominee, students must satisfy the requirements for continuing students. Official certification of James Scholar standing is made at the end of the academic year (upon completion of these requirements).

Further information about the James Scholar program is available from the college office, 270 Lincoln Hall.

Rogers Merit Scholar Program

The College of Liberal Arts and Sciences has established the Robert W. Rogers Merit Scholarship program for highly qualified freshmen. Those freshmen chosen as Robert W. Rogers Scholars may enroll in any curriculum in the college and are awarded $1,000 for the year; the award may be renewed for the sophomore year if the student maintains at least a 4.5 (A = 5.0) grade-point average. After an initial review of all admitted freshmen is made, those with the highest qualifications are invited to apply. The selection of Rogers Scholars is made by a faculty panel and based on exceptional scholastic achievement, high performance on either the ACT or SAT examination, and evidence of leadership in the school or community. No more than ten new awards are made each year.

Cohn Scholar Program

The Cohn Scholar Program provides intellectual and financial support for a small group of highly qualified freshmen concentrating in the humanities. Cohn Scholars participate in a special freshman-year program. Typical activities during the year include tutorials, seminars, and orientation in the use of University facilities. Students are given opportunities for meeting with both faculty and students with similar interests; they are also assigned a special honors adviser for the program and for academic advising. Students are selected for the program by a faculty committee on the basis of an application, high school class rank, and performance in a

competitive entrance examination (ACT or SAT). Inquiries should be addressed to the School of Humanities, 112 English Building, 608 South Wright Street, Urbana, IL 61801.

Honors at Graduation

College honors at graduation is awarded on the basis of academic excellence and satisfaction of one of the following: (1) successful completion of 25 hours of honors courses (or of work on honors learning agreements); (2) successful completion of 35 hours of 300-level course work; or (3) earning departmental distinction. Provided that one of the requirements above is satisfied, the award of college honors is made according to the following ranges: *cum laude* if the college grade-point average places a student in the top 12 percent of the graduating class but not in the top 7 percent; *magna cum laude* if the college grade-point average places a student in the top 7 percent of the graduating class but not in the top 3 percent; and *summa cum laude* if the college grade-point average places a student in the top 3 percent of the graduating class.

Departmental Distinction

Students who have shown exceptional competence in one or more areas of study may earn distinction in their field(s) of concentration or curriculum. Criteria for awarding distinction are established by the departments. Students interested in working for distinction should consult their honors adviser early in their junior year. Specific information about requirements is available from the departmental and curriculum advisers. Generally, in addition to meeting the scholastic requirements and the minimum requirements for a concentration, a student graduating with departmental distinction must satisfy at least one of the following requirements: (1) presentation of an acceptable thesis; (2) satisfactory performance on a comprehensive examination prepared by the major department; or (3) completion of a special course of study of at least 4 semester hours approved by the major department.

A student who has completed a curriculum in teacher education and has shown superior ability in that area may be recommended for distinction in the teacher education program. Information about requirements may be obtained from the adviser in the area of specialization.

Phi Beta Kappa

Invitations for membership into Phi Beta Kappa, the nation's oldest honor society, are sent to outstanding students in Liberal Arts and Sciences each April. Eligibility requires rank in the top 10 percent of seniors in LAS as well as a minimum number of graded hours and appropriate course distribution. Precise criteria and detailed information may be obtained from the chapter secretary, Professor Mary Lee Spence, Department History, 300B Gregory Hall, 810 South Wright Street, Urbana, IL 61801 (217) 333-4145.

Awards

There are a number of prizes and awards available to outstanding students in certain areas of the college. Departments will generally notify students of the possibility of such an award; however, students interested may obtain a current list of the awards available from the college office, 270 Lincoln Hall.

SPECIAL DEGREE OPPORTUNITIES

Combined LAS/Engineering Program

For a number of years, the Colleges of Liberal Arts and Sciences and Engineering have jointly sponsored a five-year program leading to a B.A. or B.S. degree in Liberal Arts and Sciences and a B.S. degree in a field of Engineering. The program allows motivated students to obtain professional engineering education combined with a broad liberal arts background. The program, not intended to eliminate any graduation requirements of either college, requires students to complete all degree requirements of both colleges.

Freshmen normally apply for entrance to the program through the College of Engineering, but students who have applied to and been accepted by the College of Liberal Arts and Sciences may be able to enter the program. All students must meet the entrance requirements of both colleges. In addition, they may be required to meet the intercollegiate transfer

requirements of both colleges. Further information about the program may be found on pages 178 and 179.

Individual Plans of Study

Individual Plans of Study (IPS) is a concentration in the sciences and letters curriculum. Students who qualify for IPS may design their own special concentration from University course offerings. Interested students should contact the adviser for the program in the General Curriculum Office, 912 South Fifth Street, Champaign, IL 61820. Also see page 262 for a further description.

Combined Degree Programs with Commerce

The College of Liberal Arts and Sciences together with the College of Commerce and Business Administration offers two joint-degree programs that lead to the degrees of B.A./B.S. in Liberal Arts and Sciences and M.A.S. or M.B.A. Each program takes five years to complete. These programs allow students to seek master's programs in accounting or business administration while providing students the broad opportunities unique to a liberal arts program. For further description, see page 307. Students interested in these opportunities should contact the LAS office, 270 Lincoln Hall, for additional information and advising.

SPECIAL OPPORTUNITIES

Study Abroad

Many students in the College of Liberal Arts and Sciences find that they can benefit from a semester or year's study in a foreign country. To facilitate such study abroad, the College of Liberal Arts and Sciences sponsors a number of special study abroad programs and provides for student participation in these and other programs. There are three general categories of programs: (1) a program enabling students to study at an approved foreign institution of their choice; (2) special study abroad programs sponsored by units of the College of Liberal Arts and Sciences; and (3) participation in cooperative programs sponsored by other universities or groups of universities.

LAS STUDY ABROAD

The College of Liberal Arts and Sciences supports the Study Abroad Office to aid students who plan to study at an approved foreign institution or in a program of their choice other than those offered by departments within the college itself. The option is open not only to students in LAS, but also to students in other colleges within the University. A student's program for study abroad must have prior approval from the major department, the student's college, and the Study Abroad Office. Final determination of appropriate credit is made upon the student's completion of the work after returning to campus.

Students register in LAS 299 for 0 hours per semester and may earn a maximum of 30 semester hours per academic year or 36 semester hours for the academic year, including summer study.

Interested students should contact the Study Abroad Office, University of Illinois at Urbana-Champaign, 306 Coble Hall, 801 South Wright Street, Champaign, IL 61820.

YEAR ABROAD PROGRAM IN JAPAN

In cooperation with several other universities, the University of Illinois at Urbana-Champaign offers a year abroad program in Japan at the Konan-Illinois Center on the campus of Konan University in Kobe, located in western Japan near Osaka and Kyoto. Students participating in the program receive an intensive introduction to Japanese language, culture, and society by combining classroom and independent study, home stay with a Japanese family, and opportunities for field trips and personal travel. The program is open to any student in good standing at the University. No prior knowledge of Japanese is required. Students from other colleges and universities as well as beginning graduate students may participate in the program.

Interested students should contact the Konan-Illinois Program Coordinator, 310 Coble Hall, 801 South Wright Street, Champaign, IL 61820.

YEAR ABROAD PROGRAM IN FRANCE

The College of Liberal Arts and Sciences and the Department of French sponsor a year abroad program in France. The nine months of study at the University of Dijon include a preliminary program emphasizing the French language. In addition to a study of French language and literature, students may include other subjects in their program. All courses are taught by French professors. The program is open to any student with at least a 3.5 (A = 5.0) university grade-point average and a 3.5 grade-point average in French. Participation in the program is not limited to students concentrating in French, although any student accepted for the program should have completed several courses beyond the intermediate level (French 104 or equivalent).

Interested students should contact Professor Gabriel Savignon, Department of French, University of Illinois at Urbana-Champaign, 2090 Foreign Languages Building, 707 South Mathews Avenue, Urbana, IL 61801.

YEAR ABROAD PROGRAM IN AUSTRIA

In cooperation with the Department of Germanic Languages and Literature, the College of Liberal Arts and Sciences sponsors a year abroad program in Austria in Baden and Vienna. In addition to courses in language, literature, education, sciences, and civilization at the Paedagogische Akademie in Baden, students may elect courses at institutions in Vienna. Participants in the program should have at least a 3.75 (A = 5.0) University grade-point average, including a 4.0 grade-point average in German courses. Students accepted into the program should have a language proficiency beyond the intermediate level (i.e., German 211 or its equivalent), although students need not be German concentrators.

Interested students should contact the Austria–Illinois Exchange Program, Department of Germanic Languages and Literatures, University of Illinois at Urbana-Champaign, 3072 Foreign Languages Building, 707 South Mathews Avenue, Urbana, IL 61801.

YEAR ABROAD PROGRAM IN SPAIN

In cooperation with the Department of Spanish, Italian, and Portuguese, the College of Liberal Arts and Sciences sponsors a year abroad program in Spain. After orientation sessions at Barcelona and Madrid, students in the program study for two semesters at the University of Barcelona. Participants in the program should have at least a 3.5 (A = 5.0) University grade-point average and at least a 4.0 grade-point average in Spanish courses. Students accepted into the program must have completed the intermediate level in Spanish (Spanish 104 or its equivalent). At least one year's study in language and literature beyond the intermediate level is desirable for students to benefit fully from the program. The program is designed for juniors concentrating in Spanish or the teaching of Spanish; however, seniors or well-qualified sophomores in Spanish and students studying in other areas may apply.

Interested students should contact the Department of Spanish, Italian, and Portuguese, University of Illinois at Urbana-Champaign, 4080 Foreign Languages Building, 707 South Mathews Avenue, Urbana, IL 61801.

COOPERATIVE PROGRAMS ABROAD

Russian Language Study at Leningrad State University. The University of Illinois participates in the cooperative Russian language program at Leningrad State University under the auspices of the Council on International Educational Exchange (CIEE). The program consists of one or two semesters of study or one summer session. Students in the program study Russian language and literature, and classes are conducted in Russian by the university faculty. All students must have facility in the language, but the program is not limited to students concentrating in Russian.

Interested students should obtain details and applications from the Department of Slavic Languages and Literatures, University of Illinois at Urbana-Champaign, 3092 Foreign Languages Building, 707 South Mathews Avenue, Urbana, IL 61801.

Spanish Summer Program in Mexico. The University of Illinois participates in the eight-week summer program of Spanish at the Universidad Veca Cruzana, sponsored by the Committee on Institutional Cooperation (CIC). Students should be in good academic standing and have at least a 4.0 (A = 5.0) grade-point average in Spanish. Students accepted in the program should have the equivalent of third-year, college-level competence in Spanish.

Interested students should obtain further information from the Department of Spanish,

Italian, and Portuguese, University of Illinois at Urbana-Champaign, 4080 Foreign Languages Building, 707 South Mathews Avenue, Urbana, IL 61801.

Interdisciplinary Programs

A number of opportunities for interdisciplinary study are available in the College of Liberal Arts and Sciences, and a number of units in the college are devoted to the interdisciplinary study of various areas/cultures or subjects. Some of these units sponsor interdisciplinary fields of concentration; others do not have formal concentrations, but faculty do assist students in planning programs appropriate to individual needs.

There are three area studies degree programs in the college: *East Asian and Pacific Studies, Latin American and Caribbean Studies,* and *Russian and East European Studies.* Descriptions of those concentrations may be found in the section with degree requirements for those concentrations. (See the section beginning on page 245.)

The Center for African Studies, the Afro-American Academic Program, and the Office of Women's Studies do not have formal degree programs; however, the units have or are developing interdisciplinary minors and assist students interested in those subjects, in addition to coordinating research efforts in those areas.

CENTER FOR AFRICAN STUDIES

The Center for African Studies is concerned with all aspects of African affairs and cultures. The program sponsors instruction in African languages and culture, offering a number of African studies courses each semester. An undergraduate field of concentration in African studies can be arranged through Individual Plans of Study (IPS). Support for graduate students and arrangements for field experiences in Africa are also concerns of the center. The Center for African Studies is located at 1208 West California Street, Room 101, Urbana, IL 61801.

AFRO-AMERICAN ACADEMIC PROGRAM

The Afro-American Academic Program offers an interdisciplinary approach to the experiences of Blacks throughout the Americas. The program sponsors a core set of courses in Afro-American studies along with a variety of courses each semester. In addition, many courses in Afro-American studies are taught by other departments in the college. The Afro-American Studies Office is located at 1204 West Oregon Street, Urbana, IL 61801.

OFFICE OF WOMEN'S STUDIES

The Office of Women's Studies offers several core courses and coordinates appropriate courses offered by many other departments. The unit sponsors an interdisciplinary minor for students in the Sciences and Letters Curriculum and a teacher education minor for students completing a degree program in teacher education and who wish to be able to teach women's studies in the schools. (See page 307.) The office also advises students who wish to develop a women's studies concentration through Individual Plans of Study (IPS). The Office of Women's Studies is located at 304 Stiven House, 708 South Mathews Avenue, Urbana, IL 61801.

Curricula

CURRICULUM IN SCIENCES AND LETTERS: GENERAL REQUIREMENTS

For the degree of Bachelor of Arts or Bachelor of Science in Liberal Arts and Sciences

Students completing this curriculum receive the degree of Bachelor of Arts or Bachelor of Science in Liberal Arts and Sciences, depending on the student's concentration. As of fall 1986, concentrators in the physical sciences, geography, life sciences, mathematics, psychology, and speech and hearing science may elect *either* the degree of Bachelor of Arts or Bachelor of Science without regard to the student's specific program of study within the concentration. Students in any of the other concentrations receive the Bachelor of Arts degree. However, it is expected that by fall 1987, the College of Liberal Arts and Sciences will have completed revisions to make the various concentrations degree-specific; i.e., students completing a given concentration receive the degree specified for that concentration. Students entering the College of Liberal Arts and Sciences in fall 1987 or later and electing one of the concentrations in the physical sciences, life sciences, or mathematics will receive the Bachelor of Science degree.

Students in any of the other concentrations, except for geography and psychology, will receive the Bachelor of Arts degree. Students in geography of psychology should consult their departmental adviser concerning any revision(s) for their concentration and the effective dates of such revision(s).

Components of the Curriculum

The sciences and letters curriculum consists of several distinct parts, all of which are considered by the college to be necessary for a liberal education. Below is an outline of the components of the degree program. A detailed discussion of each component follows.

REQUIREMENT	EXPLANATION		HOURS
ENGLISH	Rhet. 105 or Sp. Com. 111-112 or equivalent required.		4-6
FOREIGN LANGUAGE	Completion of the fourth semester or equivalent of a language is required. (Completion of 4 years of a single language in high school satisfies this requirement.)		0-16
GENERAL EDUCATION	Ten courses (at least 30 hours), including at least 5 in Area I (generally subjects in the arts and social sciences) and at least 5 in Area II (generally subjects related to the sciences).		30
Area I	Literature and the arts	1-2 courses	
	Historical and philosophical perspectives	1-2 courses	
	Social perspectives	1-2 courses	
	Non-Western cultures and traditions	1 course	
		Minimum of 5 courses	
Area II	Physical science	1-2 courses	
	Biological science	1-2 courses	
	Behavioral science	1-2 courses	
	Mathematics	0-2 courses	
	Science & society	0-1 course	
		Minimum of 5 courses	
FIELD OF CONCENTRATION	See requirements of concentrations beginning on page 245. Normally, courses for the concentration must be chosen in consultation with the departmental adviser. A *C* average in the concentration is required for graduation.		40-60 (normally)
ADVANCED HOURS	The courses for the degree program must include at least 21 hours of courses designated as advanced (i.e., all 300-level courses and a few specially designated 200-level courses).		
ELECTIVES	Courses freely chosen (and not counting towards completion of the requirements above) subject only to the restriction that no more than 24 hours may be outside LAS.		Enough to total at least 120 hours
RESIDENCY	First 90 hours or last 30 hours on this campus. Last 60 hours at a 4-year school. At least 12 advanced hours in the core for the field of concentration must be taken on this campus.		

TOTAL FOR THE DEGREE ..... At least 120 hours

English Composition Requirement

The ability to write effectively is a cornerstone of a liberal education. All students in the sciences and letters curriculum must satisfy the campus rhetoric requirement. See page 78 for a statement of the requirement. Students are strongly encouraged to include additional writing courses in their program whenever possible.

Foreign Language Requirement

All students in the sciences and letters curriculum are expected to learn a foreign language in their undergraduate program. A minimum expectation is that students obtain a knowledge equivalent to the completion of the fourth semester of college study in a language. Some programs may require additional study or the study of a specific language. Students planning on graduate study may wish to consult the department of intended graduate study about language requirements for the graduate program. This may dictate the student's choice of language in his or her undergraduate work.

The foreign language requirement may be met in any of the following ways:

1. Satisfactory completion of four years of the same foreign language in high school;
2. Satisfactory completion of the fourth semester level of a language in college;

3. Satisfactory completion of the third semester level in each of *two* languages by any combination of high school and college work;
4. Satisfactory performance at the fourth semester level in a language proficiency examination approved by the College of Liberal Arts and Sciences and the appropriate department.

General Education

A primary role of the College of Liberal Arts and Sciences is expressed through its general education requirements. In contrast to the occupational objectives of professional colleges, the College of Liberal Arts and Sciences expects breadth as well as depth. Graduates of the college are expected to obtain an understanding of the ways in which knowledge is acquired and used in a variety of fields. Although it is not reasonable to require extensive knowledge of all areas of human inquiry, graduates must have some acquaintance with literature and the arts, history, philosophical inquiry, and the insights and techniques of the social sciences. In a constantly changing world, graduates must have some understanding of cultures and traditions different from their own. In a technology-oriented society, it is necessary to be acquainted with the aims and methods of the sciences, to recognize their accomplishments, and to appreciate the problems posed by technological advances.

In the final analysis, the worth of one's education can be determined by the nature and the quality of the varied judgments one makes throughout life. In this sense, general education is a useful counterbalance to specialized education and also a complement to it. General education is a *process,* not simply a list of categories or required courses. Unlike specialized, or professional, education, which serve valuable but limited purposes, general education should serve a person and society in other ways — less conspicuous but equally important.

Students are therefore required to complete broadly distributed course work in two general areas — one in the arts and social sciences, the other in mathematics and the sciences. At least ten courses must be taken, five in Area I (arts and social sciences) and five in Area II (mathematics and science). The specific list of the distribution of courses is given in Components of the Curriculum, page 242. A list of courses approved for each of the general education categories is published by the college and is available in the *LAS Student Handbook.*

The general education categories and their purposes may be described as follows:

Literature and the Arts. To provide some familiarity with the literary and visual or performing arts as aesthetic or creative achievements.

Historical and Philosophical Perspectives. To enlarge students' understanding of the past and thus to provide an important perspective on the present; to enable students to understand major philosophical issues that confront human beings.

Social Perspectives. To provide students with an understanding of social contexts and institutions.

Non-Western Cultures and Traditions. To expand students' understanding of the values and traditions of people from different cultures.

Biological Sciences. To consider the structure and function of life forms, their ecological or their evolutionary relationships, and their importance to the human community.

Physical Sciences. To convey an understanding of the substance and investigative approach of the physical sciences. Courses need not be highly specialized, but should have sufficient depth so that students comprehend major aspects of the physical world and are conversant with the nature of scientific inquiry.

Behavioral Sciences. To acquaint students with the study of individual human behavior.

Mathematics. To study a substantial mathematical endeavor or to explore the scientific and humanistic import of mathematics.

Science and Society. To explore the evolution and application of particular sciences and/or technologies together with their social and cultural implications.

Students are urged to consult with their advisers regarding the choice of courses to complement their programs and to meet educational objectives. Some of the approved courses have prerequisites. Students should note the following:

— The credit-no credit option may not be used for courses that satisfy general education requirements.

— There are no limits on the number of courses from a single department that may be used to satisfy the requirements.

— Courses taken to satisfy a field of concentration requirement may also be used to satisfy general education requirements provided they are on current general education lists.

— A student who successfully completes a CLEP general examination using University of Illinois standards will receive a waiver of the requirement and, in certain cases, credit. See the *LAS Student Handbook* for details.

Students who receive college credit for Advanced Placement (CEEB) work will find that some course credit will generally apply toward the relevant requirement. For example, English Literature Advanced Placement scores of *4* or *5* will provide 3 semester hours of credit in English 103 and, therefore, count toward the requirement for literature and the arts. See page 34 for current credit policies for Advanced Placement Examinations.

Similarly, proficiency credit received through a department's own testing program may be used to satisfy general education requirements.

Students planning to study in a specialized curriculum or in a teacher education curriculum will be subject to the requirements as indicated elsewhere in this catalog rather than the above requirements.

Field of Concentration

All students in the sciences and letters curriculum are expected to study a single discipline in some depth. This portion of the student's program is called the *field of concentration.* A field of concentration consists of approximately 40 to 60 hours of course work designated by the department and approved by the faculty of the college. Most concentrations are divided into two portions: the core (course work within the department) and the cognate (course work related to the concentration but *not* within the department of the concentration). All but 12 to 20 hours in the concentration will be in the core. The concentrations not divided into core and cognate are the interdisciplinary concentrations (e.g., the area studies concentrations and the humanities concentration). It is expected that at least one-half of the course work for a field of concentration should be chosen from courses numbered 200 and above.

There are thirty-nine concentrations from which students may choose, and a number of concentrations have multiple options within the concentration. A complete list of concentrations available may be found on page 235. The field of concentration should be chosen no later than the beginning of the junior year. Most concentrations require that students choose their courses in consultation with a faculty adviser. Students should plan to discuss their concentration with a faculty adviser early in the junior year. In most cases, students will be expected to submit to the college a written list of courses for their field of concentration (called the concentration plan) prior to the beginning of their sixth semester.

Since the field of concentration is a required portion of the sciences and letters curriculum, students must take all course work for the minimum requirements of the concentration for a traditional letter grade (or on the satisfactory–unsatisfactory basis). The credit–no credit grading option may not be used for courses in the concentration.

The satisfactory completion of a field of concentration requires not only the completion of a stated amount of course work, but also requires that the student earn at least a *C* average in courses for the field of concentration. In order to graduate, a student should earn at least a 3.0 average in all courses that are included in the field of concentration average and taken on this campus *and* at least a 3.0 average in all courses that are included in the field of concentation average and taken here and elsewhere. Consult the department or the college office for a list of courses included in the field of concentration average for a specific concentration.

All students are expected to complete a minimum amount of advanced course work for their field of concentration on this campus. Specifically, students normally complete on this campus at least 12 hours of advanced core course work (course work within the department) in the field of concentration.[1]

[1] Students who entered LAS prior to fall 1984 should consult the college office for information regarding this requirement.

Advanced Hours Requirement

A liberal arts program requires study in a number of areas (general education requirements) and study in some depth. Thus all students are expected to complete a minimum portion of

their undergraduate program in courses that presume some prior knowledge of the discipline. Courses are considered *advanced* if they presume such prior knowledge as indicated by the course number (300 or above), by the prerequisites necessary for enrollment in the course, or by the quality and depth of work expected of students in the course. All students in the Sciences and Letters Curriculum are expected to complete at least 21 hours of courses designated as *advanced* by the college in order to graduate. All such courses must be taken at a baccalaureate-granting institution. Courses designated as *advanced* are those courses numbered 300 or above and those 200-level courses that are specially designated as *advanced.* A list of such advanced 200-level courses may be found in the *LAS Student Handbook.*

Electives

One of the special features of a liberal arts program is that most fields of concentration allow time in the student's program for a number of courses chosen freely from among the University's offerings. These courses, called *electives,* may be used to broaden preparation for professional study, to complement the liberal arts component of the program with courses specifically designed to prepare for business and career opportunities, or to explore additional areas of interest. In addition to all courses used to fulfill the minimum graduation requirements of the college (rhetoric, foreign language, general education, and field of concentration), students may use as electives any course sponsored by a unit in the college or by a unit sponsoring a field of concentration in the college *and* up to 24 hours of courses offered by departments and schools in other colleges on campus.

Specifically, a student following a field of concentration may use as electives:

1. Courses offered by the College of Liberal Arts and Sciences;
2. Courses offered by departments and schools in other colleges of the University that sponsor fields of concentration in LAS [art (excluding applied art courses), computer science, economics, finance, music (excluding applied music courses), or physics]; and
3. A maximum of 24 hours (to be counted toward graduation) of courses not included in (1) or (2) above. Examples of courses in this category are accounting, business administration, engineering, applied art courses, and applied music courses.

Undergraduate students of high academic standing within 10 semester hours of a bachelor's degree may be given the privilege of electing courses in the Graduate College for graduate credit with the consent of the dean of that college. Students with senior standing may petition the Graduate College for permission to elect graduate courses for undergraduate credit. In either case, the student must have a 4.0 average or higher in courses taken beyond the sophomore level. Interested students should first consult the College of Liberal Arts and Sciences.

Residency

Students must satisfy the University residency requirement for graduation (page 76). They must complete on this campus, uninterrupted by work elsewhere, either the first three years (at least 90 hours of course work) or the last year (at least 30 hours). The hours must be applicable toward the degree sought. In addition, all students must earn 60 hours of course work at a four-year (baccalaureate-granting) institution after any work at a community college. Students in the sciences and letters curriculum are expected to earn at least 12 hours of advanced courses in their core for the field of concentration on this campus (page 244.)

Total Hours

A total of 120 semester hours, excluding more than 4 hours of basic physical education and excluding most military training, is required for graduation in the sciences and letters curriculum.

SCIENCES AND LETTERS CONCENTRATIONS

Actuarial Science

This concentration is sponsored by the Department of Mathematics. See page 270.

Anthropology

Anthropology courses: 28 hours (including 102-103 or 110)
Cognate courses: 12 hours (chosen in consultation with an adviser)

Anthropology, which views human behavior and society (both past and present) in a cross-cultural perspective, combines scientific and humanistic interests in a modern social science framework. It consists of biological anthropology (human genetics and evolution and the zoological order of primates), archaeology (the prehistory of cultures and the origins and growth of human technology), sociocultural anthropology (the comparative study of social structures and institutions from simple hunter-gatherer to complex urban settings), and anthropological linguistics (the comparative study of languages and communications). Although they should strive for a topical and geographic balance, undergraduates may specialize in one of these four branches, and they may also study some world culture area intensively through an area studies program. Anthropology is an appropriate field of concentration for those seeking a general liberal education, for those preparing for professional study and careers in law, medicine, or commerce, and for those planning further graduate study in anthropology. Professional anthropologists work as research scientists and teachers in museums, universities, and archaeological surveys or as staff members in government agencies, social service programs, and business firms where international understanding or human and social concerns are important.

The 28 hours in anthropology must include either Anth. 110 or the 102-103 sequence but not both. At least 12 hours in anthropology must be advanced (Anth 291, or 293, or any 300-level course) and at least 6 of the cognate hours must be in 200- and 300-level courses. Students are strongly urged to take Anth. 220, 230, 240, and 270. A balance among courses in the subdisciplines (archaeology, biological anthropology, cultural and social anthropology, and linguistics) is highly recommended. Students must take all 12 cognate hours either within the School of Humanities or the School of Life Sciences, or within the Departments of Economics, Geology, Mathematics, and Psychology, or in the social sciences. All students should discuss their selection of anthropology and cognate courses with a departmental adviser. Modifications of these requirements can be worked out between the student and adviser and, with the approval of the head of the department, will be submitted to the college office to establish individual requirements for a field of concentration in anthropology.

Departmental Distinction. To be eligible for distinction, a student must maintain a 4.6 average in 32 hours of anthropology courses, including Anth. 293 and/or 291, and submit a thesis for judgment by the departmental honors board.

Art History

Art history courses: 32 hours (including 111-112)
Cognate courses: 15 hours (chosen in consultation with an adviser)

Like the other humanities, the history of art as an undergraduate area of concentration offers an enrichment of and a preparation for life, rather than training for a specific occupation. The concentrator who goes on to graduate work in the field can look forward primarily to becoming a teacher of the subject, to membership on the staff of a museum, or to employment in a commercial art gallery.

Working in consultation with the undergraduate adviser for art history, each concentrator will design a program of study that satisfies the requirements listed below. Students who wish to take a considerable number of studio courses as part of their concentration should enroll in the History of Art Option offered by the School of Art and Design within the College of Fine and Applied Arts.

REQUIREMENTS

1. **Courses in the history of art and architecture.** Art Hi. 111 and 112 and, in addition, at least 24 hours of art history at the 200- and 300-level, including one three-hour course in each of the following areas: (a) Ancient and Medieval art; (b) Renaissance, Baroque, and Rococo art; (c) Late Eighteenth, Nineteenth, and Twentieth Century art; and (d) African, Asian, Oceanic, and Pre-Columbian art.

   Courses in the history of architecture, excluding Arch. 210, may be used with the approval of the adviser for as many as 12 hours in meeting the 24-hour requirement.

2. **Foreign language.** French or German is most strongly recommended for fulfilling the foreign language requirement; however, other languages may be used with the approval of the adviser as the needs of the student's program dictate. Students who have decided to make the history of Oriental art their major study in undergraduate and graduate work would be well advised to satisfy the requirement with Chinese or Japanese rather than with a European language.
3. **Cognates.** At least 15 hours of courses at the 200- and 300-level in cognate areas chosen with the approval of the adviser must be completed. Although the Program in Art History allows considerable latitude in the selection of such courses, they should be chosen with the goal of enhancing the student's understanding of the cultural context within which works of art and architecture have been created. Recent practice suggests that cognate courses will most commonly be drawn from such fields as anthropology, classics, history, literature, music and dance history, philosophy, psychology, and religious studies.

Departmental Distinction. To be eligible, students must earn a high grade-point average and complete at least 4 semester hours of independent research. See the undergraduate adviser for details.

Asian Studies[1]

Requirements: At least 40 hours.

This program, sponsored by the Center for East Asian and Pacific Studies, permits either a single geographical regional focus (East Asia; South Asia; Southeast Asia; the Middle East) in an integrated language and area, or general area program; or a language-literature-linguistics specialization; or a program of cross-cultural studies. While individual programs of study must be approved by the director of the center or by an adviser designated by the director, the following general information and statements of requirements will assist students in planning programs of study.

The area of concentration in Asian studies consists of a minimum of 40 semester hours of course work selected from three of four discipline distribution categories: humanities, social sciences, language-literature-linguistics, related courses and fields. A complete list of approved courses is available from the center. Students must designate one of these categories as a primary concentration with a minimum of 20 hours of course work, a secondary category with a minimum of 12 hours of course work, and a tertiary category with a minimum of 8 hours of course work. The category "related courses and fields" may not be offered as a primary concentration. Courses offered within each category should be distributed over several disciplines. Students selecting language-literature-linguistics as their primary discipline-distribution may not include the first-year level of their language of specialization in the 20-hour minimum.

Departmental Distinction. Students must maintain a 4.25 cumulative grade-point average and a 4.5 grade-point average in Asian Studies, complete two 300-level (or 400-level) nonlanguage courses in Asian Studies beyond minimal concentration requirements, and receive the endorsement of the faculty adviser and the honors committee. Candidates are advised to consult the faculty adviser about all details at the beginning of their senior year.

[1] A revision of this program not reflected in the statement below was pending approval at the date of publication. Students entering August 1987 or later should consult the Center for East Asian and Pacific Studies regarding requirements.

Astronomy

Astronomy courses: 18 hours (300-level astronomy/physics courses)
Cognates/prerequisites: 3 or 8 hours of introductory astronomy, 12 hours of general physics, and 11 (or 10) hours of calculus

The field of concentration in astronomy demands both a broad and an in-depth exploration into astronomy and allied disciplines, rather than focusing on one relatively limited area of the subject. Specific programs of study for individual students must be designed and periodically updated through mutual discussions between students and their academic advisers. Students should note sequential prerequisites for courses.

REQUIREMENTS

The basic concentration consists of a minimum of 44 hours distributed as follows:

1. Astr. 101 and 102, or 210;
2. Math. 120, 132, and 242 or equivalent;
3. Phycs. 106, 107, and 108;
4. A minimum of 18 hours in 300-level astronomy and physics courses (excluding Phycs. 319), of which at least 10 hours must be in astronomy courses.

Additional courses recommended for concentrators, especially those intending to pursue graduate study in astronomy, include: Math. 343, 345; Phycs. 331, 332, 333, 361, 386, and 387.

Departmental Distinction. A student concentrating in astronomy may earn distinction by attaining a minimum grade-point average of 4.5 in 300-level astronomy and physics courses.

Chemistry

Chemistry courses: 30 hours (including general chemistry)
Cognate/prerequisites: 11 (or 10) hours of calculus and 10 or 12 hours of general physics

Students may specialize in chemistry by following either (1) the chemistry curriculum (leading to the Bachelor of Science in Chemistry) or (2) the chemistry concentration in the sciences and letters curriculum (leading to the degree Bachelor of Science — or Arts — in Liberal Arts and Sciences). The chemistry curriculum is a rigorous, specialized program suitable for those planning careers in chemistry. It meets the professional standards prescribed by the American Chemical Society. The requirements are detailed on page 286. In contrast, although the chemistry concentration in the sciences and letters curriculum (requirements described below) is used by some students planning chemistry careers, it is more often chosen by students wishing to obtain a chemistry background for use in related fields. Some students who change their fields to chemistry after their freshman year will find the chemistry concentration requirements most compatible with their preparation.

REQUIREMENTS

Students must complete at least 30 hours in chemistry and biochemistry, excluding Chem. 100, 103, 122, and 199. These must include Chem. 340 or 342 and two other 300-level courses, at least one of them outside physical chemistry. Transfer credit in chemistry must be approved by the adviser to be included in the 30 hours. Mathematics through Math. 242 or 245 and physics through Phycs. 102 or 108 also must be completed.

Sequence of Courses. Students who desire thorough training in the fundamentals of chemistry should select the following courses: Basic courses — Chem. 107 and 109, 108 and 110, 136 and 181, 336, 342 and 383, 344 and 385, 315; Specialized courses — advanced offerings selected from biochemistry; chemical engineering; and analytical, inorganic, organic, and physical chemistry. Students whose Chemistry Placement Test scores do not qualify them for registration in Chem. 107 may substitute the alternate sequence Chem. 101, 102, and 123 for Chem. 107-110. Students majoring in other disciplines having limited chemistry requirements should seek advice from their departmental advisers.

Departmental Distinction. To be eligible, a student must have an overall grade-point average of at least 4.0 and must register in a senior thesis course (Chem. 292 or Biochem. 292). Recommendations for distinction are based on the quality of the thesis work and the grade-point average. See the honors adviser for details.

Cooperative Education Program. Students accepted into the Chemistry Cooperative Education Program spend alternate periods of attendance at the University with periods of employment in industry or government. Transcript recognition is given as well as a certificate of participation at graduation. Additional information and applications are available in the School of Chemical Sciences Placement and Advising Office, 107 Noyes Laboratory, 505 S. Mathews Avenue, Urbana, IL 61801.

Classics

Classics courses: 24-32 hours (depending on option chosen)
Cognate courses: 20 hours (chosen in consultation with an adviser)

Studying the languages and culture of ancient Greece and Rome is useful for students seeking a broad education in the liberal arts or preparing for graduate study in one of the many fields of Classical, Medieval, or Renaissance scholarship. Within the general requirements of the concentration, the Department of the Classics can offer individual programs designed to meet the needs and interests of each student. Close interaction between faculty and students, individual attention, tutorial instruction, opportunity for study abroad in Greece and Italy, and unmatched resources in the Classics Library and the collections of ancient art and other objects from classical antiquity in the museums on campus provide unique advantages for the pursuit of classical studies.

Concentrators in classics may choose one of the following options and take an additional 20 hours of cognate courses.

1. **Classical Civilization** (including classical archaeology): Twenty-four hours of Classical Civilization courses (excluding Classical Civilization 100), 6 of which must be at the 300-level.
2. **Latin Option:** Twenty-four hours of Latin — excluding Latin 101, 102, 103, 105 — and including Latin 311 and at least 6 additional hours at the 300-level.
3. **Greek Option:** Twenty-eight hours of Greek — including Greek 311 and 6 additional hours at the 300-level.
4. **Classics Option:** Thirty-two hours: Greek 201, 202, 311; Latin 201, 202, 311; at least 6 additional hours each in Greek and in Latin at the 300-level.

Cognate Courses. Twenty hours in appropriate courses from two or more of the following subjects: anthropology, architecture, art, classical civilization (not approved for Option 1), comparative literature, English, foreign languages, Greek (not approved for Options 3 or 4), history, Latin (not approved for Options 2 or 4), linguistics, philosophy, political science, religious studies, speech communication, and theatre. Concentrators must plan their programs in consultation with a departmental adviser.

Note: Concentrators choosing the Classical Civilization Option are advised, though not required, to satisfy the college foreign language requirement with one of the classical languages.

Departmental Distinction. Students seeking departmental distinction must have at least a 4.5 average in relevant courses and should consult with a member of the department's honors committee at the earliest opportunity.

Comparative Literature

Comparative literature courses: 15 hours
Literature courses: 24 hours
Cognate courses: 9 hours (chosen in consultation with an adviser)

Students who elect comparative literature as a field of concentration must complete 48 semester hours in the courses indicated below, at least 15 hours being in courses numbered 300 or above. Besides knowing English, students must have sufficient linguistic skills in at least one foreign language to participate in 200- and 300-level literature courses offered by the various foreign language and literature departments.

As soon as students are contemplating choosing comparative literature as a field of concentration, they should consult the faculty adviser, who will assist them in selecting appropriate courses that will be especially helpful as preparation for the advanced comparative literature training beginning with the junior year. Courses in classical civilization and in literature (particularly courses dealing with works from several countries) are especially recommended at relatively early stages of study. An ample selection of such courses at the 100 and 200 levels exists in the various literature departments.

The distribution of course work allows for considerable flexibility. It must include:

1. At least 15 hours in comparative literature courses, including C. Lit. 201 and C. Lit. 202. The remaining hours should be selected from different types of courses: e.g., 141, 142, 351, 361, 371.
2. At least 15 hours in one literature in the original language (ancient or modern, including

Far Eastern and African), 12 of which are at the 200 level or above, studied in depth and in its historical development. (Normally this is the primary literature of the student's educational background.)

3. At least 9 hours at the 200 level or above in a second literature in the original language. With the assistance of the adviser, these courses should be carefully chosen so as to correlate meaningfully with the student's primary literature. Students may center their interest on cultural periods such as medieval, renaissance, neo-classical and enlightenment, or modern (nineteenth and twentieth centuries), or on genres, relations, or critical theory.[1]
4. At least 12 hours of literature courses used for (1), (2), or (3) above must be at the 300 level or approved for advanced hours in the College of Liberal Arts and Sciences.
5. At least 9 hours in any single national literature or several, including comparative literature; or in other humanistic fields, e.g., history, philosophy, speech, art, music, psychology, sociology, theatre, anthropology, and Asian studies. Since some of the courses in these subjects are more suitable than others to balance a student's individual program of concentration in comparative literature, students must follow the guidelines given to them by their adviser.
6. Western civilization: C. Lit. 141-142 (6 hours) or Hist. 111-112 (8 hours); these sequences may be used to satisfy the requirements, respectively, of Group 1 or Group 5 above. Beginning students in comparative literature are strongly urged to take the 141-142 sequence.

Departmental Distinction. To be eligible for distinction, a student must have at least a 4.5 cumulative grade-point average and 4.75 in departmental courses, complete a senior thesis (C. Lit. 293), and receive the approval of the departmental honors committee. The departmental honors committee will determine the level of distinction to be awarded.

[1] If one of the literatures studied is English, students who plan to continue in a graduate program in comparative literature will be expected to acquire a reading knowledge of a second foreign language (i.e., one foreign language for the B.A., two foreign languages for the M.A., three foreign languages for the Ph.D.).

Computer Science (Mathematics and Computer Science)[1]

Computer science courses: 25 hours (including CS 121)
Mathematics courses: 31-33 hours (including calculus)

This field of concentration is jointly sponsored by the Departments of Mathematics and Computer Science. It is designed to prepare students for professional or graduate work in mathematics and computer science.

REQUIREMENTS

1. Mathematics and computer science core requirements: (32-33 hours)
   Math. 120, 132, 242, or 135 and 245, or equivalent (*calculus*) 10-11
   Math. 247 (*intermediate analysis*) 3
   C.S. 121, 225 (*software core courses*) 7
   C.S. 257 (*numerical analysis*) 3
   C.S. 273 (*theory of computation*) 3
   C.S. 221 (*machine-level programming*) 3
   C.S. 264 (*introduction to the structure and logic of digital computers*) 3
2. 300-level mathematics and computer science requirements: (24-25 hours)
   Students must elect at least eight 300-level mathematics and computer science courses, including one from each of the following groups:
   Group I: Math. 361 or Stat. 310/Math. 363 (*probability—statistics*)
   Group II: Math. 312, 317 (*algebra and discrete mathematics*)
   Group III: Math. 315, 318 (*matrices and linear algebra*)
   Group IV: Math. 341, 346, 384 (*applied analysis*)
   Group V: Math. 344, 347 (*real variables*)
   Group VI: Math. 314, Math./C.S. 373, Math./C.S. 375, C.S. 376, Math. 377 (*foundations of computer science*)

[1] This statement reflects a revision of the program which was pending final approval at the date of publication. It is expected that the approval will be final for fall 1987.

Group VII: C.S. 323, 325 (*software*)
Group VIII: C.S. 355, 358, 359 (*numerical analysis*)

NOTES

— Students who transfer into this field of concentration after having taken a 100-level computer science course other than C.S. 121 should take C.S. 122 in lieu of C.S. 121. All other students in this field of concentration must take C.S. 121.
— A student taking a cross-listed course in this field of concentration may designate it either as mathematics or computer science.

Departmental Distinction. Students interested in attaining departmental distinction in mathematics and computer science should consult with the honors adviser for program requirements early in their junior year.

Economics

Economics and statistics courses: 21 hours of economics, including Econ. 101, 300, and 301; and 6 hours of statistics (Econ. 172 and 173 or equivalent).
Cognate courses: Mathematics through at least a first course in calculus, and 18 hours in courses related to major interest in economics

Economics is a social science that studies the problems caused by scarcity and how individuals, institutions, and societies may deal with these problems. Economics shares common interests with business-oriented disciplines, such as finance and business administration. Economists frequently require quantitative skills, such as calculus and statistics, to derive economic principles that are useful in forming policies designed to solve economic problems.

REQUIREMENTS

The field of concentration in economics requires course work in three areas. For further information, see the *Economics Bulletin* available in the office of undergraduate studies of the department. The requirements are:

1. **Economics and Statistics:** At least 21 hours of economics, including Econ. 101, 300, and 301 (but excluding Econ. 199, 294, 295, and 299); and 6 hours of statistics (Econ. 172 and 173 or equivalent).
2. **Mathematics:** Minimum requirement is Math. 125-134 or equivalent. (See *Economics Bulletin*.) Additional mathematics courses are recommended.
3. **Cognate:** At least 18 hours in courses outside economics but related to student's major interest in economics. (See *Economics Bulletin* for examples.) Except for special cases noted in the bulletin, at least 12 of the 18 hours must be in a single discipline and at the 200-level or above.

Departmental Distinction. A student must have an overall grade-point average of at least 4.25 and at least 4.50 in economics; complete a research project (e.g., complete Econ. 294-295 or 299); and be recommended by a faculty research adviser.

English (Concentrations in English and Rhetoric)

English

English courses: 30 hours
Cognate courses: 6-8 hours of Western civilization, and 12-14 hours chosen in consultation with an adviser, for a total of 20 hours

The study of English and American literature is the study of traditions, masterpieces, and critical theory and practice. Students who concentrate in English have many options in planning a field of study, but the basic program is designed to accommodate students who seek to broaden their familiarity with our literature, to intensify their language skills for personal and professional reasons, and to learn more about literature's relationship to the other arts, history, philosophy, psychology, and the modern languages.

REQUIREMENTS

Students must complete the following:

1. **English courses.** Thirty hours, distributed as follows: Engl. 101, Introduction to Poetry (It is strongly recommended that this course be taken prior to advanced courses in the

concentration.); three survey courses (Engl. 209, British Literature to 1800; Engl. 210, British Literature from 1800 to present; Engl. 255, American Literature to 1870); a 300-level Shakespeare course; and at least one course from each of the following five groups:

Group I: (*British literature to 1800*) Engl. 202, 204, 206, 315, 316, 321, 326, 327, 328, 329
Group II: (*British literature after 1800*) Engl. 207, 240, 247, 331, 334, 335, 341, 342
Group III: (*American literature*) Engl. 249, 250, 256, 259, 260, 347, 350, 351
Group IV: (*Major author other than Shakespeare*) Engl. 311, 323, 343, 355
Group V: (*Theme, mode, genre, and interdisciplinary approaches*) Engl. 215, 241, 242, 243, 244, 245, 246, 248, 249, 250, 273, 275, 280, 281, 284, 361, 362, 365, 366, 367, 368, 375, 383, 387

No single course can be used to fulfill the requirement of more than one group and at least 9 hours (excluding the course in Shakespeare) must be at the 300 level.

2. Cognate courses. Twenty hours. These hours will consist of: (A) Western Civilization. All students will complete either Hist. 111-112 (8 hours) or C. Lit. 141-142 (6 hours). (B) Twelve to 14 additional hours within one of three options: (1) an approved sequence in one field other than rhetoric; (2) an approved sequence in two fields; (3) a topical cognate, comprising courses from three or more fields and combined into an intellectually or professionally coherent study. English concentrators often arrange cognates in history, political science, economics, philosophy, art, comparative literature, psychology, and cinema studies. Possibilities for topical cognates include:
   a. *Premedical:* Chemistry, biology, biochemistry, and physics courses from the approved premedical sequence.
   b. *Precommerce:* Economics, finance, accountancy, and business administration courses selected in consultation with an academic adviser and with a clear professional objective in mind.
   c. *Medieval studies:* Courses such as Hist. 173, 204, 304, 307; Relst. 121; Arch. 311, 312; Art Hi. 111, 322, 323, 324; Ital. 309, 333.
   d. *Asian studies:* Courses chosen from Chin. 203-204, 207-208, Japan. 203-204, 205-206, 301-306, as well as from Asian studies.
   e. *Cinema studies:* Courses such as Art Hi. 256; Fr. 288; Human. 261-262, 361; Germ. 390; Slavic 319; Sp. Com. 207.
3. Special recommendations.
   a. Students interested in the departmental honors program should consult the English Advising Office.
   b. Students interested in the English teacher-training program must consult with the teacher-training adviser, preferably by the middle of the sophomore year. Requirements for the teacher-training program differ from requirements for the regular field of concentration.
   c. Students planning to enter graduate school should elect as many 300-level courses as possible, including a course in either Chaucer or Milton *and* a course in the history or structure of the English language. Further, these students should consult the specific requirements of the graduate schools they plan to enter.

Departmental Distinction. Students interested in graduating with distinction or high distinction must enter the honors program with at least a 4.25 grade-point average, complete three honors seminars, and write a senior honors essay. To be considered for highest distinction, a student must take an additional 3 hours and complete a senior honors thesis. Levels of distinction are assigned by the honors committee on the basis of grade-point average, work in English courses and in honors seminars, and the readers' evaluations of the honors essay or honors thesis. Interested students should consult the departmental honors adviser for details.

Rhetoric

Rhetoric courses: 12 hours
English courses: 12 hours of English and American literature
Cognate courses: 6-8 hours of Western civilization and 12-14 chosen in consultation with an adviser, for a total of 20 hours

The advanced rhetoric program permits a student to work in one or more of three disciplines: poetry, fiction, and/or exposition. Except for the tutorial Rhet. 355, all courses are taught as

workshops by a veteran faculty consisting largely of producing writers. The program provides excellent preparation for graduate work in writing.

REQUIREMENTS

Students must complete the following:

1. At least one course in expository writing selected from Rhet. 143 or 227.
2. Nine additional hours of rhetoric selected from Rhet. 143, 144, 145, 205, 227, 305, 306, 355.
3. One course in Shakespeare (Engl. 318 or 319).
4. Nine additional hours of English and American literature selected from 200- and 300-level English courses.
5. Journ. 326 may be counted toward the concentration with an adviser's permission.
6. An additional 20 hours of cognate course work selected in consultation with an adviser. As part of the cognate courses, all rhetoric concentrators will satisfy the Western civilization general education requirement by completing either Hist. 111-112 (8 hours) or C. Lit. 141-142 (6 hours); all remaining courses in the cognate should be in one discipline or be related to each other by topic, time period, or area.

Departmental Distinction. Students must enter the honors program with a 4.2 grade-point average and complete two English honors seminars and a significant writing project in Rhet. 355. Levels of distinction are assigned by the honors committee based on work in rhetoric courses and honors seminars and on the readers' evaluations of the writing project. Interested students should consult the departmental adviser for details.

Finance

Finance courses: 24 hours
Cognate courses: 26 hours (as specified below)

The field of finance is concerned with the acquisition of funds and the determination of the use of funds by a business or an individual. In this process, an important aspect is the valuation of assets, both financial and real. Specific areas of finance include the acquisition and use of funds by businesses (business finance), the valuation of financial assets (investments), the financial environment and participants (money and banking), the valuation and financing of real properties (real estate), and an assessment of risks and programs to insure against risk (insurance and risk management).

REQUIREMENTS

Students must complete the following:

1. At least 24 hours of finance courses including:
   a. Finance 254
   b. Seven additional finance courses: Current recommendations of courses in each program area within finance are available in the department office.
2. At least 26 hours of cognate courses including:
   a. Accy. 201, 202
   b. Math. 120 or 134
   c. C.S. 105
   d. Econ. 101, 172, 173
   e. At least 3 hours from the following courses: Current recommendations of courses in each program area within finance are available in the department office.

      Accy. 211, 221, 251
      Arch. 379
      B. Adm. 200, 202, 210, 261, 274, 321
      C.E. 318
      Econ. (any course numbered above 101, excluding Econ. 172 and 173)
      Geog. 366, 383
      I.E. 335, 357, 358
      Math. (any course numbered beyond Math. 120, excluding Math. 134)

      Additional courses may be substituted upon the approval of a finance adviser.

NOTES

1. Fin. 254 has as a prerequisite Accy. 200 or 202 and as a concurrent prerequisite Econ. 172. Therefore, the cognate work in accounting (Accy. 201, 202) and mathematics (Math. 134) should be taken in the sophomore year.
2. Econ. 101 should be taken in the freshman year.

Sample Programs. The specific finance and cognate courses to be selected depend upon the student's interest in a particular area of finance. Programs are available in the following areas: *general finance, business finance, insurance, investments, financial institutions and money markets, real estate,* and *risk management.* It is not necessary to choose one specific program area. Finance concentrators seeking advice about the specific finance and cognate courses to take should consult with their advisers.

Departmental Distinction. Departmental distinction will be awarded on the basis of the grade-point average.

French

French courses: 44-47 hours (beyond the 100-level)
Cognate courses: 6-8 hours of Western civilization and 12-15 hours (chosen in consultation with an adviser)

REQUIREMENTS

Fr. 205 or 206; 207; 209; 210 or their equivalent; plus 32 to 35 hours in French beyond these courses. These 32 to 35 hours *may not* include 100-level courses, 270, 280, and *must* include courses as outlined below; Fr. 199 may be included if approved by an adviser.

Twelve to 15 hours in courses are to be chosen from other departments or programs.

Option I — French Studies

1. Four courses in French language and linguistics, including Fr. 314.
2. Four courses in French literature: two courses in French literature prior to 1800 and two courses in French literature from 1800 to present.
3. Three additional courses in French civilization, French film, French language and linguistics, French literature, or francophone studies.
4. Fr. 290: Major tutorial in French language, literature, and civilization.
5. Twelve to 15 hours in other departments chosen with the approval of the option adviser.
6. Western civilization: Hist. 111-112, or C. Lit. 141-142.

Option II — French Commercial Studies

1. Five courses in French language and linguistics, including Fr. 314, 319, and 320.
2. Four courses in French civilization, French literature, or francophone studies.
3. Fr. 385 and 386.
4. An approved cognate of at least 15 hours in business administration, finance, and/or economics in consultation with option adviser.
5. Western civilization: Hist. 111-112, or C. Lit. 141-142.

Note: Consult an adviser concerning mathematics and economics courses appropriate for the fulfillment of LAS general education requirements.

Year Abroad Program. See page 240.

Departmental Distinction. A student must have at least a 4.5 cumulative average, complete a senior thesis (Fr. 292), and complete two additional advanced level courses in French or in the cognate. Consult the honors adviser for details.

Geography

Geography courses: 27-33 hours, with at least 40 hours in the concentration
Cognate courses: 12-28 hours

Students in geography must complete both the core courses in geography and one of the seven options, for a total of at least 40 hours in the concentration.

Students who elect one of the options in general human and physical geography, urban and social geography, historical and regional studies, or economic geography are encouraged to

include Math. 124, 134 (finite mathematics and calculus for social scientists) as part of their undergraduate programs, either as electives or as part of the Area II general education requirements. The options in physical environment, natural resource evaluation, and spatial graphics and analysis have specific mathematics requirements as listed below.

CORE IN GEOGRAPHY (15-16 hours)

1. Students must elect three introductory geography courses chosen from physical geography (Geog. 102, 103) and human geography (Geog. 101, 104, 105).
2. Geog. 271 (Spatial Analysis) is required.
3. Students are strongly encouraged to elect Geog. 373 (cartography).
4. All students are encouraged to elect techniques courses as part of their program. The techniques courses include Geog. 185, 272, 273, 277, 290 (spatial programming), 370, 373, 374, 375, 377, 378.

OPTIONS

1. **General human and physical geography**
   a. *Geography courses:* At least 6 hours of physical geography and 6 hours of human geography to be selected from 200- and 300-level courses, excluding Geog. 210.
   b. *Cognate courses:* Twelve hours, chosen in consultation with the adviser, from the following: agronomy; agricultural economics; anthropology; biology; civil engineering; ecology, ethology, and evolution; forestry; geology; history; landscape architecture; plant biology; political science; psychology; sociology; urban and regional planning.
   c. At least 40 hours total in the concentration, including the core.
2. **Urban and social geography**
   a. *Geography courses:* Twelve hours chosen from Geog. 110, 204, 205, 284, 290, 294, 314, 325, 326, 365, 366, 380, 383, 384, 385, 386, 387.
   b. *Cognate courses:* Twelve hours, chosen in consultation with the adviser, from the following: agricultural economics, anthropology, communications, economics, history, landscape architecture, political science, psychology, sociology, urban and regional planning.
   c. At least 40 hours in the concentration, including the core.
3. **The physical environment (the Earth's land and biota)**
   a. *Geography courses:* Twelve hours chosen from 200- and 300-level physical geography courses (Geog. 203, 272, 303, 304, 305, 307, 308). Students may choose geomorphologic and biogeographic processes.
   b. *Supporting courses:* Math. 120. Students in geomorphology must elect Phycs. 101; students in soils geomorphology must elect Chem. 101-102. These courses may be used as part of the Area II general education requirements.
   c. *Cognate courses:* Nine to 12 hours, chosen in consultation with the adviser, of courses in agronomy; atmospheric sciences; biology; civil engineering; ecology, ethology, and evolution; forestry; geology; and plant biology.
   d. At least 46 hours total in the concentration, including the core courses.
4. **Historical and regional studies**
   a. *Geography courses:* Twelve hours chosen from Geog. 110, 204, 224, 272, 290, 314, 323, 325, 326, 327, 331, 332, 342, 353, 355, 361, 380, 381, 382, 383. Students may choose historical geography, historic preservation, or the geography of a continental region.
   b. Students specializing in the study of a foreign area should select an appropriate language in fulfilling the foreign language requirement.
   c. *Cognate courses:* Twelve to 15 hours, chosen in consultation with the adviser, of courses in African, Latin American, Russian and East European, or West European area studies; American civilization; or from architecture, history, landscape architecture, and urban and regional planning.
   d. At least 40 hours in the concentration, including the core courses.
5. **Natural resources evaluation**
   a. *Geography courses:* Nine hours chosen from Geog. 203, 214, 303, 304, 305, 308, 314, 361, 363, 367; and 6 to 8 hours from the geographic technique courses (Geog. 277, 290 [spatial programming], 370, 373, 374, 375, 377, 378).

b. *Supporting courses:* Chem. 101-102; Math. 124, 134. Also Econ. 101 should be included. These courses may be used as part of the Area I (Econ. 101) and Area II (Chem. 101, 102 and Math. 124, 134) general education requirements.
c. *Cognate courses:* Six to 9 hours, chosen in consultation with the adviser, of courses in agronomy; biology; civil engineering; ecology, ethology, and evolution; forestry; geology; plant biology.
d. At least 44 hours in the concentration, including the core courses.

6. Economic geography
   a. *Geography courses:* Fifteen to 17 hours, of which 9 hours normally will be chosen from Geog. 205, 290, 314, 361, 363, 365, 366, and 383; and 6 to 8 hours from the geographic technique courses (Geog. 185, 277, 290 [spatial programming], 370, 371, 374, 375, 377, 378, 387).
   b. *Supporting course:* Econ. 101.
   c. *Cognate courses:* Twelve to 15 hours, chosen in consultation with the adviser, of courses in agricultural economics; civil engineering; economics (includes Econ. 101); finance; political science; sociology; and urban and regional planning.
   d. At least 42 hours in the concentration, including the core courses.
7. Spatial graphics and analysis
   a. *Geography courses:* Fifteen hours, of which 9 to 12 will normally be chosen from geographic techniques (Geog. 185, 277, 290 [spatial programming], 370, 373, 374, 375, 377, 378), and the remaining from 200- and 300-level courses.
   b. *Supporting courses:* Math. 112 and 114; also, Math. 124 and 134 are strongly recommended. Math. 124 and 134 may be used as part of the Area II general education requirements.
   c. *Cognate courses:* Twelve to 15 hours, chosen in consultation with the adviser, of courses in art and design; civil engineering; communications; computer science; general engineering; landscape architecture; mathematics; and urban and regional planning.
   d. At least 47 hours total in the concentration, including the core courses.

Departmental Distinction: All students concentrating in geography who have maintained a University grade-point average of 4.25 and who satisfactorily complete an independent project (Geog. 291) in their senior year will be eligible to graduate with distinction in geography. Students should consult their adviser about distinction requirements as soon as they enter the field of concentration — no later than the end of their junior year.

Geology

Geology courses: 28 hours
Cognate courses: 31-33 hours (as specified below)

This field of concentration is designed for students who want a more flexible course of study than is provided by the curriculum in geology (see page 287). The program is designed mainly for those wishing to obtain a reasonably liberal education and/or a background in geology for use in fields such as business, environmental science and technology, mineral economics, regional planning, journalism, law, sales, or library science. It will not prepare a student for graduate work in the geological sciences unless the student selects a plan of courses in background mathematics, chemistry, and physics fully comparable to that in the curriculum in geology.

REQUIREMENTS

Prerequisites — Geol. 107, 108,[1] qualification for Math. 120 or 135 and for Chem. 101 or 107.

[1] Students planning to concentrate in geology should take Geol. 107-108; students who decide to concentrate in geology after taking Geol. 101 or 102 must take an additional 4 hours of 100-level work excluding Geol. 142 and 143. Geol. 107 or 108 is strongly recommended to complete the total of 8 hours of 100-level work; see a departmental adviser.

1. **Geology.** Twenty hours including: Geol. 332 (4), Geol. 320 or 321 (4), Geol. 317 (8), and an additional 300-level course (4).
2. **Cognate course work.** Thirty-one hours including: Math. 120 or 135 (5), Chem. 101, or 107 and 109 (4 or 5), Phycs. 101 or 106 (5 or 4), life science (6), and an additional 12 hours to be approved by a departmental adviser (12).

Departmental Distinction. Students who maintain a grade-point average of at least 4.5 in all geology courses and 4.0 in all other science and mathematics courses and who complete an acceptable honors thesis, including at least 4 hours credit in Geol. 293, are recommended for graduation with distinction.

Germanic Languages and Literatures

German courses: 29 hours (beyond the 100-level); 12 hours beyond the 100-level for Scandinavian
Cognate courses: 20-26 hours (chosen in consultation with an adviser); 33 hours for Scandinavian. These hours include 6-8 hours of Western civilization.

A concentration in German serves to develop fluency in one of the leading languages of science, industry, and intellectual culture; familiarity with principles governing the structure of our Indo-European family of languages and of languages generally; insight into the use of language in literary expression and portrayal; and knowledge of the culture that finds expression through this language and its literature. The departmental concentration in Scandinavian provides substantially the same advantages. The following options are offered within this field of concentration:

Language and literature. Designed as a traditional study of German, providing students with a balanced knowledge of German language, literature, and civilization.

1. Twenty-nine hours in German, including 211, 212, 231, 232, 301, 302, 311, 312, 320, 365.
2. Twenty hours of cognate course work (A) Western civilization: All students will complete either Hist. 111-112 (8 hours) or C. Lit. 141-142 (6 hours). (B) Twelve to 14 additional hours of course work outside of German language and literature selected in consultation with an adviser.

German literature in the European context. Designed to expand the students' view of literature by acquiring a broad knowledge of German, drawing on courses offered by other literature departments, and exploring the relationship of literature to the arts, history, politics, and culture.

1. Same as number 1 above.
2. Twenty hours of cognate course work (A) Western civilization: All students will complete either Hist. 111-112 (8 hours) or C. Lit. 141-142 (6 hours). (B) Twelve to 14 additional hours outside of German language and literature selected in consultation with an adviser. The study of other literatures in their original language is recommended.

Language studies. Designed to acquaint students with the structure and development of Germanic languages.

1. Twenty-nine hours in German, including 211, 212, 231, 232, 301, 302, 311, 312, 320, 365.
2. Twenty-four to 26 hours of cognate course work (A) Western civilization: All students will complete either Hist. 111-112 (8 hours) or C. Lit. 141-142 (6 hours). (B) At least 18 additional hours, including Gmc. 367, Scan. 101 and 102, Ling. 300 and one additional linguistics course, and Engl. 303.

Modern German studies. Designed to provide students an understanding of present-day civilization and culture in German-speaking countries of Central Europe.

1. Twenty-nine hours in German, including 211, 212, 231, 232, 301, 302, 320, 365, and two of the following: 330, 331, 332, 335, 390.
2. Twenty hours of cognate course work (A) Western civilization: All students will complete either Hist. 111-112 (8 hours) or C. Lit. 141-142 (6 hours). (B) Twelve to 14 additional hours outside of German language and literature. This course work may be fulfilled in the departmental study program in Baden, Austria, or in an approved program in another German-speaking country, or on campus.

German and commercial studies. Designed to provide students with an understanding of the language and customs of the business world in German-speaking countries, together with cognate study of international affairs and commerce, especially trade with Europe.

1. Twenty-nine hours in German, including 211, 212, 220, 221, 231, 301, 302, 303, 320, 365.

2. Twenty hours of cognate work (A) Western civilization: All students will complete either Hist. 111-112 (8 hours) or C. Lit. 141-142 (6 hours). (B) Twelve to 14 additional hours outside of German language and literatures selected in consultation with the major adviser. These cognate hours are usually selected from business administration, finance, and/or economics, occasionally also from political science and geography.

Scandinavian studies. Designed for students who will be able to spend a year abroad studying in Scandinavia.

1. Twelve hours in Scandinavian beyond Scan. 101-104. Scandinavian courses in translation are acceptable.
2. Twenty-four hours of study abroad in Scandinavian through an approved L.A.S. 299 program (in, e.g., language, literature, history, art, political science, or linguistics). Nine additional hours of cognate work outside of Scandinavian studies must be selected in consultation with an adviser; these hours will include the Western civilization requirement that is satisfied by completing either Hist. 111-112 (8 hours) or C. Lit. 141-142 (6 hours).

Year Abroad Program. See page 240.

Departmental Distinction. Concentrators in the Department of Germanic Languages and Literatures are urged to consult the departmental honors adviser by the second semester of their junior year for information pertaining to senior honors work and honors awards in the department.

History

History courses: 30-34 hours (including 100-level survey sequence[s])
Cognate courses: 20 hours (chosen in consultation with an adviser)

Students in the history concentration should acquire a broad background from the study of the human experience in different cultures and time periods. A wide distribution of courses is therefore advisable; this is especially true for those who wish to enter teaching, government service, or professional schools for law, social work, museum and library science, business administration, or labor and industrial relations.

REQUIREMENTS

1. A prerequisite to the advanced work in history is one freshman-sophomore survey sequence (Hist. 111-112, 131-132, 151-152, 168 and 170, 173-174, 175-176, or 181-182).
2. A second freshman-sophomore sequence may also be offered, but at least 18 of the required hours of history courses must be at the 200- and 300-level.
3. One of the courses, at any level, must be in a premodern period of history.
4. The history courses must include at least 12 hours in an area of specialization and at least 6 hours in a second area. The following areas may be selected: ancient, medieval, and Renaissance (Europe); modern Europe since 1500 (including Russia); the United States and Latin America; Africa and the Near and Middle East; South, Southeast, East Asia. With the approval of the departmental adviser and in consultation with a sponsoring professor, a student may develop before the beginning of the senior year a special topical, geographical, or chronological area of concentration (for example, prelaw, Latin American studies, the world from 1789 to 1914).
5. Hist. 298 must be taken as part of the 30-34 hours requirement. The prerequisite for the course is 14 hours in history, 6 of them at the 200- or 300-level.
6. At least 20 hours of cognate courses must be taken outside the History Department. Students who have not had Hist. 111-112 must take Comp. Lit. 141-142 as part of their cognate to satisfy the western civilization requirement. Twelve of the 20 hours in cognate courses must be at the 200- and 300-level. Traditional areas for cognates are: ancient and modern languages (excluding the first-year elementary courses and also excluding the second-year courses if those courses are being used to fulfill the language requirement in the College of Liberal Arts and Sciences), anthropology, art history, classical archaeology and civilization, economics, English, American and comparative literature, geography, library science, music history, philosophy, political science, psychology, religious studies, and sociology. Nonhistory courses chosen from the multidisciplinary fields of women's studies, African studies, Asian studies, Latin American studies, Russian language and area studies, medieval civilization, Renaissance civilization, American civilization, and cinema studies are also accepted as

cognates if they meet the criteria of relevance and academic level. History of science students and premedical and predental students may offer cognate work in the physical and life sciences. All cognate courses should be related by time, area, and/or topic to the area of concentration and are subject to the approval of the history department adviser.

For details on the field of concentration in history and the honors program, see the adviser in 300 Gregory Hall.

Departmental Distinction. To be eligible, a student must have at least a 4.5 grade-point average, complete a senior thesis, and receive the approval of an examining committee. The examining committee will determine the level of distinction to be awarded.

Humanities

Requirements: At least 45-51 hours

The School of Humanities is an association of humanities departments in the College of Liberal Arts and Sciences and, in cooperation, the College of Fine and Applied Arts. In addition to their own concentrations, these departments have developed an interdisciplinary program of study, sponsored by the School of Humanities, which encompasses several distinct programs designed to acquaint students in a coherent manner with topics that cross disciplinary boundaries. At present, the field of concentration in humanities includes program options in: American civilization, cinema studies, history and philosophy of science, medieval civilization, and Renaissance studies. Since the school is unable to sponsor options in all specialties or topics of humanistic study, students whose interests do not coincide with one of the specific options are encouraged to consult with the school office and to consider developing their own program through the Individual Plans of Study concentration. Enrollment in the field of concentration in humanities requires a declaration of one of the options.

Each option of the field of concentration in humanities is supervised by a committee of faculty whose own scholarship and educational interests have involved them in interdisciplinary teaching and research. An adviser for students is available in each option and is responsible for approving students' plans of study. Action on matters other than course selection is taken by the committee.

CONCENTRATION

Enrollment in a field of concentration requires the following:

1. Elect one of the options offered within the concentration in humanities and file an option declaration with the School of Humanities office no later than the end of the first semester of the junior year. Students who do not begin work on option requirements by their junior year will be at a disadvantage.
2. Select specific courses counted toward completion of an option with the advice and approval of the option adviser. Any coherent program is acceptable, subject to specific option requirements developed in consultation with the option adviser.
3. For the elected option, complete the stated minimum number of hours (which will be at least 45 hours) in courses applicable toward the concentration and in accord with the distribution requirements listed below (a, b, and c); at least 25 hours must be at the 200- and 300-level. *Note: Some course selections may require prerequisite courses.* Total hours will most likely be in excess of the 45-hour minimum; however, most students will complete two or perhaps three college general education distribution requirements in the process.
   a. Elect and complete in consultation with an adviser at least 36 hours of topically oriented course work with at least 6 hours in each of three different departments or programs.
   b. Complete a junior seminar and tutorial of at least 3 hours in the elected option.
   c. Complete a senior seminar and tutorial or senior thesis of at least 3 hours as specified in the elected option.

OPTIONS

American civilization. This option offers a comprehensive introduction to the study of American civilization primarily through the study of art, history, literature, philosophy, and the social sciences.

Requirements (48 hours)

a. Two introductory courses of at least 3 hours each chosen with approval of the option

adviser; the introductory courses should provide a broad overview of the development of American culture, e.g., Human. 141 and 142.

b. At least 9 additional hours selected from among the following: Engl. 249, 255, 259, 260, 347, 350, 351, and 362.
c. At least 9 additional hours selected from among the following: Hist. 260-262, 354-360, 362-364, 367-374.
d. At least 6 hours selected from among the following: Arch. 315 and 316; Art Hi. 346, 350, and 351; Phil. 313, 316, 323.
e. At least 12 additional hours selected in consultation with the option adviser from courses offered in the departments of anthropology, economics, geography, political science, and sociology.
f. Substitutions for any of the above specific courses may be permitted with the approval of the option adviser.
g. At least 3 hours in the Junior Tutorial and Seminar (Human. 297).
h. At least 3 hours in the Senior Tutorial and Seminar (Human. 298).

Cinema studies. This option offers an interdisciplinary introduction to the study of film from various literary, cultural, and social perspectives. The emphasis is on developing methods and skills of critical interpretation, but students are also encouraged to acquire basic competence in the technical aspects of filmmaking by completing at least one course in cinematography. The option's underlying aim is to enrich the individual by exposure to the most significant patterns, philosophies, and artifacts of history and of narrative and dramatic expression.

Requirements (51 hours)

a. Acquire a knowledge of at least one foreign language sufficient to the student's program in film studies. In most cases, this requirement will exceed the college foreign language requirement by 6 semester hours of study. The language and the level of proficiency will be determined in consultation with the option adviser.
b. An introductory course: Engl. 104.
c. A two-semester general survey of world film: Human. 261 and 262.
d. A course in film theory and criticism: Human. 361.
e. At least one course in filmmaking: Art Ci. 180, 280, or 380, or equivalent.
f. Substitutions for specific courses listed above will be approved by the option adviser only in exceptional cases.
g. At least 18 additional hours in film courses offered in individual departments in the School of Humanities. At least 9 of these hours must be in courses offered in foreign language departments, and at least two languages must be represented in the total.
h. At least 12 additional hours of cinema-related courses in one or more of the following general fields: aesthetics, art or architectural history, communications, criticism, cultural anthropology, foreign language studies, linguistics, literature (fiction and/or drama), modern history, music, philosophy, photography, theatre. Specific courses and sequences in these fields are to be approved at the discretion of the option adviser, except that courses eligible to satisfy requirement (g) may not be approved under requirement (h).
i. Three hours in the Junior Tutorial and Seminar (Human. 297). This course will involve an independent research project in a field of cinema defined by the student and the submission of a substantial piece of writing growing out of this research.
j. Three hours in the Senior Tutorial and Seminar (Human. 298). This course will involve the completion of a significant paper somewhat comparable to a senior honors thesis.

History and philosophy of science. This option is designed to allow students to combine the study of science (including mathematics), the history of science, and the philosophy of science in an integrated program. Within the framework of specific requirements, individual programs of study will be designed to fit the student's particular interests.

Requirements (45 hours)

a. At least 15 hours from among the following with at least 6 hours in Group I and 6 hours in Group II.
   Group I: Phil. 270, 317, 318, 319, and 371.
   Group II: Hist. 247, 248, 249, and 338; Chem. 390; Psych. 360. Substitutions for the above specific courses may be permitted with the approval of the option adviser.

b. At least 24 hours of course work in a single discipline selected from the following: biology; ecology, ethology, and evolution; entomology; genetics and development; microbiology; physiology; plant biology; astronomy; biochemistry; chemistry; chemical engineering; geology; mathematics; or physics. In consultation with the option adviser, a student may design an interdepartmental program of science courses; in this case, at least 6 of the 24 hours must be at the 300 level.
c. At least 3 hours in the Junior Tutorial and Seminar (Human. 297).
d. At least 3 hours in the Senior Tutorial and Seminar (Human. 298).

Medieval civilization. This option is intended to introduce students to medieval culture, provide them with a sense of periods, names, ideas, and movements in sequence, and thus give them a synoptic view of the field. Students whose interests are primarily literary should consult with an adviser in comparative literature or one of the language and literature departments. The required courses are designed to encourage students to read medieval texts, insofar as practical, in the manner that a medieval university student would have read them. In addition, a certain amount of training in the reading and interpretation of medieval documents and in the study of Latin and the medieval vernacular languages will bring students closer to the thought of the period.

Requirements (45 hours)

a. Acquire a reading knowledge of a foreign language relevant to the student's interests in medieval civilization. In most instances, this requirement will coincide with the college foreign language requirement. The language should be selected in consultation with the option adviser.
b. Two introductory courses of at least 3 hours each selected in consultation with the option adviser.
c. Complete two advanced-level topically oriented courses of at least 3 hours each selected in consultation with the option adviser. Selected courses should focus on a topic central to medieval civilization and should emphasize the international cultural and social unity of medieval civilization; sample topics include medieval vernacular literatures, mythology, the Bible and medieval exegesis, iconography, paleography and the medieval book, cosmography, geography in the Middle Ages, or the influence of Islam. Departmental courses, such as Hist. 331 or 332, and Cl. Civ./Sp. Com. 315, or special topics courses, such as Human. 295, may be used to complete this requirement; but courses must be selected with the adviser's approval.
d. Complete 27 hours of medieval-related course work selected in consultation with the option adviser from the departments of art, history, literature, music, philosophy, and religious studies.
e. Complete at least 3 hours of the Junior Seminar and Tutorial (Human. 297). The medieval civilization topic of Human. 297 will require an ability to read primary and secondary sources in a foreign language.
f. Complete at least 3 hours of the Senior Thesis (Human. 292). The thesis should ordinarily be in one of the following areas: art, medieval Latin literature, vernacular literature, liturgy and worship, philosophy and theology, history, or science.

Renaissance studies. This option incorporates course work in the Renaissance and related periods and places an emphasis on independent study and the completion of research papers in the junior and senior years.

Requirements (45 hours)

a. Complete a minimum of 15 hours of Renaissance-related course work in a single discipline at the 200- and 300-level from among the following: art, history, literature, or music.
b. Complete at least 24 hours of Renaissance-related course work in the following areas with at least one course in each: art, history, music, philosophy, and literature. At least one of these courses must be in classical literature or culture.
c. Acquire a reading knowledge of a foreign language relevant to the student's interests in Renaissance study, selected in consultation with the option adviser.
d. Complete at least 3 hours in the Junior Seminar and Tutorial (Human. 297), which will lead to the completion of a research paper that demonstrates an ability to initiate and complete a thorough study of a topic on the Renaissance. The successful completion of this paper is a prerequisite to the Senior Seminar and Tutorial.

e. Complete at least 3 hours in the Senior Seminar and Tutorial (Human. 298), which will lead to the completion of a significant research paper.

Departmental Distinction. To be eligible for graduation with distinction, students must have a college grade-point average of 4.5 and an option grade-point average of 4.75 and must complete an additional one-semester course or independent study or thesis. See the option adviser for details.

Individual Plans of Study (IPS)

Students in the College of Liberal Arts and Sciences may choose any of the 69 different undergraduate degree programs offered within the college. These fields of concentration and specialized curricula, each with its own pattern of requirements and electives, are continuously reviewed by the sponsoring departments and the college and revised as needed. At the same time, it is not possible to anticipate or specify all possible undergraduate fields of study. So, in order to encourage the growth of new academic disciplines, the college sponsors the experimental concentration—the Individual Plans of Study Program. IPS, initiated in 1971, allows the student to create an original concentration more appropriate for the individual's educational needs and characterized by a unique pattern of upper-level courses with a new academic direction.

The development of an IPS program begins with the student's perception that a more appropriate field of study could exist beyond the present fields of concentration. Consulting with the secretary of the IPS Advisory Committee and with faculty members in related fields will soon establish whether or not an original concentration is appropriate. Then, with the cooperation of one or more faculty members who consent to serve as advisers for this IPS program, an IPS field of concentration is planned and justified as carefully as if this were a departmental concentration. Although an IPS program is usually interdisciplinary, combining courses from several departments and even colleges, the IPS program is part of the Sciences and Letters Curriculum. Thus students are required to satisfy the sciences and letters requirements of rhetoric, general education foreign language, and advanced hours; they must also complete at least 120 semester hours and satisfy the residency requirement.

Once an IPS program is formulated, the student and adviser make formal application to the IPS Advisory Committee, which evaluates and decides whether a proposed IPS program is appropriate for the aims of both the student and the college.

Students interested in IPS are encouraged to inquire at 912 South Fifth Street, Champaign, IL 61820 (333-4710), as early as possible in their sophomore year. In all cases, IPS programs must be initiated and approved before the end of the student's junior year.

Departmental Distinction: To graduate with distinction, a student must (1) have a cumulative grade-point average of at least 4.25 (A = 5.0), and (2) successfully complete a project that has been approved by the IPS Advisory Committee. Further information on requirements for graduation with distinction may be obtained from the secretary of the IPS Advisory Committee.

Italian

This concentration is sponsored by the Department of Spanish, Italian, and Portuguese. See page 281.

Latin American Studies

Requirements: At least 42 hours

A concentration in Latin American studies provides an integrated exploration of a major world area. Depending upon the student's interests and career aspirations, individual programs of study are designed in close consultation with a faculty adviser appointed by the director of the Center for Latin American and Caribbean Studies. Study programs should be planned with both an areal or regional focus (e.g., Brazil, the Andean countries) and a disciplinary or topical focus. A disciplinary focus may be limited to one field (e.g., economics, literature) or may be broader in scope (e.g., social science, humanities); a topical focus would include study in depth of subjects such as population or economic development. All study programs should reflect an integrative, cross-disciplinary approach, and courses must be taken in at least three disciplines.

Students are also expected to demonstrate a substantial command of Spanish or Portuguese.

This requirement may be satisfied by taking an approved sequence of courses in either language or by passing a proficiency examination. Although not a requirement, students concentrating in Latin American studies are urged to include, during the summer or regular academic year, a period of foreign residence and study in their program.

REQUIREMENTS

The field of concentration itself consists of a minimum of 42 semester hours of course work as follows:

1. Primary focus (20 hours)
2. Secondary focus (10 hours)
3. Two courses in Spanish or Portuguese composition or conversation (5 to 6 hours) beyond the level specified by the LAS language requirement, or the equivalent as demonstrated by special examination
4. Two semesters in Advanced Special Topics, L.A. St. 295

Departmental Distinction. To be eligible, a student must achieve at least a 4.5 grade-point average in the field of concentration, complete a senior thesis, and receive the approval of the center's Research Committee.

Life Sciences

(Including Anatomical Sciences; Bioengineering; Biophysics; Biology General; Biology Honors; Ecology, Ethology, and Evolution; Entomology; Microbiology; Physiology; and Plant Biology)

Requirements for all options: 38-42 hours as given below. (Advanced and additional requirements vary according to option.)
Mathematics: 5 hours of calculus
Chemistry: 13-15 hours of chemistry through organic chemistry
Biology: 10 hours of introductory biology
Physics: 10-12 hours of general physics

The School of Life Sciences departments have cooperated in developing a field of concentration in life sciences with a number of different options suitable for students with different educational objectives. Because of the interdependency of the biology subdisciplines and their reliance on the physical sciences, all undergraduates in this field are required to have a strong background in cognate sciences and broad exposure to biological materials, phenomena, and principles. Students who do not begin mathematics and chemistry in their freshman year generally will be at a disadvantage. In the advanced biological areas, students are expected to gain experience with living systems at the molecular, cellular, organismic, population, and community levels. The ways of achieving this training differ by option.

Notes

1. Each student is required to complete all requirements of an elected option to satisfy the requirements of the life sciences field of concentration.
2. A student majoring or concentrating in an undergraduate program in the School of Life Sciences may not apply toward graduation more than 15 hours of 100-level life science courses (including cross-listed courses on this campus and courses transferred from other institutions).

ANATOMICAL SCIENCES OPTION

Life science courses: at least 23 hours (200- and 300-level courses)
Basic science courses: 38-42 hours and 3 additional hours of calculus
Cognate courses: 3 hours of biochemistry

This option, administered by the Department of Anatomical Sciences, is intended to provide broad undergraduate training for students specifically interested in the structural makeup of animals at the cellular, tissue, organ, and organismic levels. Emphasis will be placed on structure as related to function. Students who choose this option will be prepared to pursue a course of studies for an advanced degree in the biological sciences, or for entry into technical occupations in research, industry, and health services.

Requirements

1. Math. 120 and 132
2. Chem. 101 and 102 *or* Chem. 107, 108, 109, and 110; Chem. 131 and 134

3. Bioch. 350 (or Bioch. 352 and 353)
4. Biol. 110 and 111 (or Biol. 151, 251, and 351)
5. Phycs. 101 and 102 *or* Phycs. 106, 107, and 108
6. Physl. 301, 302, and either 303 *or* 304
7. Anat. 234 (Functional Human Anatomy) *or* E.E.E. 232 (Comparative Vertebrate Anatomy)
8. Anat. 319 (Vertebrate Histology)
9. At least one additional course from each of the following groups:

Group I: Cells
Biol. 210
Biol. 305
G.&D. 307

Group II: Tissues and Organs
Anat. 290
Anth. 356
Anth. 394
Sp. H.S. 375
Sp. H.S. 376
G.&D. 211
Physl. 312

Departmental Distinction. To be eligible for departmental distinction, students must complete a senior thesis and be recommended by their faculty adviser. See the undergraduate adviser for details.

BIOENGINEERING OPTION

Life science courses: 10 hours (300-level courses)
Basic science courses: 38-42 hours and 11 additional hours of mathematics
Bioengineering/engineering courses: minimum 15 hours

Administered by the Department of Physiology and Biophysics, the bioengineering option represents a broad, interdisciplinary field that brings together engineering, biology, and medicine to study basic biological phenomena and to create new techniques and devices to deal with specific medical problems. Its practice ranges from the fundamental study of the behavior of biological materials to the development of medical instruments.

Students in this option must obtain a strong background in mathematics, physics, and chemistry in addition to the biological sciences. A number of engineering course sequences are also required. Students with specific career objectives in mind should consult with their adviser as early as possible to choose appropriate courses.

Courses, in addition to those listed below, may be required for entrance into medical school or for graduate programs in engineering or the life sciences.

Requirements

1. Math. 120, 132, 242, and 345 or 135, 245 and 345
2. Chem. 107-109, Chem. 108-110, and Chem. 131 and 134
3. Biol. 110 and 111 (or approved equivalent)
4. Phycs. 106, 107, and 108
5. Physl. 301-303 and 302-304
6. Five engineering and bioengineering courses (two or more of the following sequences):
   Systems and modeling: (E.E. 260, E.E. 309, Bioen./E.E. 375) or approved systems sequence
   Bioinstrumentation: E.E. 260, E.E. 244, Bioen./E.E. 314, 315
   Biomaterials: Bioen. 308
   Transport phenomena: Bioen. 370/T.A.M. 393 or Bioen. 370C/M.E. 393
   Ultrasonics: E.E. 373, 374
   Radiobiology: Physl. 331
   Computer programming: C.S. 101
   Image processing: Bioen. 370D

Recommended Cognate Study

Physiology, biophysics, advanced engineering or physics courses, biochemistry, physical chemistry.

Departmental Distinction. In addition to the above requirements, candidates must: enroll in Bioengineering 270 and, working with a Bioengineering faculty adviser, prepare a report based on laboratory or library research. This report will be submitted to a committee that will recommend the level of distinction.

BIOLOGY GENERAL OPTION[1]

Life science courses: 21 hours (200- and 300-level courses)
Basic science courses: 38-42 hours

[1] This statement reflects a revision which was pending final approval at the date of publication.

This option provides maximum flexibility by allowing the student to design his or her own program. In selecting courses at the 200- and 300-level, the student should strike a balance between breadth and specialization. Students electing this option, therefore, must discuss these matters with their adviser and complete an approved field of concentration (FOC) plan in the school office before the end of the second semester of their junior year. The study plan may be revised with adviser approval.

Requirements

1. Math. 120 or 135
2. Chem. 101 and 102 *or* Chem. 107-109 and 108-110; Chem. 131 and 134 *or* Chem. 136 and 181
3. Biol. 110 and 111
4. Phycs. 101 and 102; *or* Phycs. 106, 107, and 108
5. Twenty-one additional hours in life sciences at the 200 and 300 level, including two field or laboratory courses. At least one course in each of the following four areas must be taken to fulfill the 21 hours required. These courses are to be selected in consultation with an adviser.
   1. Population biology-ecology-ethology
   2. Physiology-immunology
   3. Genetics
   4. Developmental morphology and anatomy

   Special topics courses (Anat. 290, E.E.E. 290, Entom. 290, G.&D. 290, Mcbio. 290, Physl. 290, Pl. Bio. 290) *will not* satisfy the 21 hour requirement.

Recommended Cognate Study. Students are encouraged to elect individual study (Anat. 290, E.E.E. 290, Entom. 290, G.&D. 290, Mcbio. 290, Physl. 290, Pl. Bio. 290); additional calculus, statistics, and/or computer science; or biochemistry.

Departmental Distinction. To be eligible for distinction, a student must maintain a minimum grade-point average of at least 4.0, register with the Biology Distinction Committee early in the senior year, and submit a report of an independent study project (290 or 292 rubric) one month prior to graduation for approval by the Biology Distinction Committee.

BIOLOGY HONORS OPTION

Life science courses: 14 hours (300-level courses)
Basic science courses: 38-42 hours, 6 additional hours of calculus, 3-4 hours of statistics
Cognate courses: 8 hours of biochemistry

This option, administered by the Biology Honors Committee, is designed for superior students wishing to pursue an intensive introductory biology program and, concurrently, to gain a strong background in the physical sciences. The option provides preparation suitable for graduate and professional training in biology.

Requirements

1. Admission by interview in spring of freshman year
2. Math. 242
3. Chem. 107-109, 108-110, and 136-181 *or* 101 and 102 and 136/181[1]
4. Biol. 151, 251, and 351 (instead of 110 and 111)[2]
5. Phycs. 106, 107, 108
6. An approved 200- or 300-level course in statistics[3]
7. Bioch. 350 and 355 *or* Bioch. 352 and 353 and 355
8. Ten hours of 300-level life sciences courses (other than Biol. 351 and 371), two of which may be in undergraduate research (290 and 292 rubrics)
9. Students must consult with their biology honors adviser at least once a semester

[1] The former sequence is recommended, and preference will be given on admission to students following it.

[2] Continuation in the biology honors option requires a grade of B or better in each of these courses.

[3] Biol. 371, Agron. 340, or Stat. 210/Math. 263, Stat. 310/Math. 363, or Math. 361/Stat. 351 are recommended, as is additional training in statistics. Suitable sequences for those taking more than a single course are Biol. 371, 373; Agron. 340, 440; and Stat. 310-311/Math. 363-364.

Recommended Cognate Study. A course in computer science (C.S. 101 or 121) is strongly recommended.

Departmental Distinction. In addition to the above requirements, candidates for distinction must:

1. Consult with the biology honors adviser early in their junior year,
2. Complete an undergraduate research project, and
3. Present an acceptable written report on the research to the Biology Distinction Committee one month prior to graduation.

Notes: No 100-level course in life sciences (other than Biol. 123 and 151) is acceptable. Advisers may not make any substitutions or other changes in the above requirements. Credit is not ordinarily given for 200-level life science courses (except Biol. 251 and independent study courses).

BIOPHYSICS OPTION

Life science courses: 5-6 hours of biophysics
Basic science courses: 38-42 hours, 9 additional hours of mathematics
Advanced science courses: 12 hours

This option, administered by the Biophysics Division of the Department of Physiology and Biophysics, is designed for the student who wishes a strong background in the physical sciences and mathematics but is basically interested in the life sciences. It is designed to provide guidelines as to which physical and life science courses especially complement each other. Because of the many possible course choices available, it is important that students within this option consult their option adviser throughout the entire undergraduate program.

Requirements

1. Math. 120, 132, 242, and 345
2. Chem. 107, 108, 109, and 110,[1] Chem. 131 and 134, *or* Chem. 136 and 181
3. Biol. 110 and 111; or equivalent[1]
4. Phycs. 106, 107, and 108[1]
5. Bioph. 301 and one of 302, 320, 332, or 354
6. Twelve additional hours of 200- or 300-level work in offerings from life sciences, chemistry, biochemistry, physics, mathematics, or bioengineering

Recommendations. Advanced undergraduate courses highly recommended include:

1. Biochemistry [Bioch. 350 (Lecture) and 355 (Lab)]
2. Electromagnetic theory (Phycs. 331 and 333)
3. Kinetic theory, thermodynamics, and statistical mechanics (Chem. 344; *or* Phycs. 361)
4. Genetics (Biol. 210)
5. Atomic physics (Chem. 342 *or* Phycs. 383)
6. Physical chemistry of macromolecules (Chem. 346)

The above listing of recommended courses is not intended to be limiting. The student should consult his or her faculty adviser about other advanced undergraduate cognate courses which may be taken toward fulfillment of the option requirement.

Recommendations for Distinction. To earn distinction in the biophysics option, the candidate must enroll in Bioph. 290 and, working with a biophysics faculty adviser, prepare a report based on theoretical or experimental research. This report will be submitted to a committee that will recommend the level of distinction to the faculty.

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[1] Students with alternative introductory sequences may petition for substitution.

ECOLOGY, ETHOLOGY, AND EVOLUTION OPTION

Life science courses: 20 hours (200- and 300-level)
Basic science courses: 38-42 hours

This option, administered by the Department of Ecology, Ethology, and Evolution, is intended to provide undergraduate training for life science concentrators who have a special interest in the closely related areas of animal ecology, behavior, and evolution. Students following this option will be prepared to pursue advance degrees in ecology, ethology, and evolution or to compete for jobs in zoos, governmental agencies (such as departments of conservation and environmental protection agencies), environmental consulting firms, and pest management firms.

Because of the broad scope of this option and the numerous relevant courses, specific course requirements are few. The student, in consultation with an option adviser, should develop a program in biology with cognate study in geology, geography, psychology, and related areas. *Suggested course work for specialized programs can be obtained from the department.*

Requirements

1. Math. 120 or 135
2. Chem. 101 and 102 *or* Chem. 107-109 and 108-110; Chem. 131 and 134 *or* Chem. 136 and 181
3. Biol. 110 and 111
4. Phycs. 101 and 102; *or* Phycs. 106, 107, and 108
5. E.E.E. 212, E.E.E. 301, E.E.E. 346, and Biol. 210
6. At least 5 additional life science hours at the 200-level or above, chosen in consultation with an adviser

Recommended Cognate Study. Courses in statistics (Biol. 371) and computer science (C.S. 103) and biochemistry (Bioch. 350).

Departmental Distinction. To be eligible for distinction, a student must maintain at least a 4.0 grade-point average (4.25 in option requirements), complete a research project, including at least two hours of E.E.E. 290, and submit an acceptable research report.

ENTOMOLOGY OPTION

Life science courses: 20 hours (200- and 300-level courses)
Basic science courses: 38-42 hours and 3-4 hours of statistics

This option is intended to provide undergraduate training to life science concentrators who are interested in careers in entomology in an academic, governmental, or industrial setting. Opportunities are provided within the option for students to obtain a broad science background for advanced work and to obtain exposure to a wide variety of entomological specializations.

Requirements

1. Math. 120 *or* 135
2. Chem. 101 and 102 *or* Chem. 107-109 and 108-110; Chem. 131 and 134 *or* Chem. 136 and 181
3. Biol. 110 and 111
4. Phycs. 101 and 102; *or* Phycs. 106, 107, and 108
5. Entom. 301 and 302 *plus* one additional 300-level entomology course
6. A course in statistics
7. Eleven hours of additional life science courses chosen in consultation with an entomology adviser

Recommended Cognate Study. Undergraduate research (Entom. 290) directed by a member of the Department of Entomology.

Departmental Distinction. Candidates must maintain a 4.0 grade-point average overall (4.5 in the entomology option) and complete an undergraduate thesis based on a project agreed upon with the departmental adviser (minimum of 4 hours credit in Entom. 290). The Departmental Distinction Committee shall, upon approval of the thesis, determine the level of distinction. See the adviser for details at the beginning of the junior year.

GENETICS AND DEVELOPMENTAL BIOLOGY OPTION

This option will be discontinued. Students in the option as of fall 1986 may continue in the option, but students will not be admitted to the option after fall 1986. Students interested in genetics and development should consult the Life Sciences Advising Office (393 Morrill Hall) for advice on which of the options in this concentration would be most appropriate to their individual interests. Study in genetics continues to be available through the various options in the life sciences concentration.

MICROBIOLOGY OPTION

Life science courses: 25 hours (200- and 300-level courses)
Basic science courses: 38-42 hours, and 3-4 hours of additional mathematics
Cognate courses: 6 hours of biochemistry/chemistry

This option is intended to provide a strong educational background in microbiology and its

supporting disciplines. Students satisfying the requirements of the microbiology option may expect to be well prepared for additional study toward higher degrees or for entry into a wide variety of technical occupations, including research, health services, and industrial or agricultural activities. Students may design their study programs to extend their experience in genetics or other areas of biology, in biochemistry or other areas of chemistry, or in the social and economic aspects of microbiology.

Requirements

1. Math. 120 *and one of the following:* Math. 132 or 161, or Biol. 371, or C.S. 101
2. Chem. 101 and 102 *or* Chem. 107-109 and 108-110; Chem. 131 and 134
3. Biol. 110 and 111
4. Bioch. 350 or Bioch. 352 and 353
5. Bioch. 355 (preferable) *or* Chem. 122
6. Phycs. 101 and 102 *or* Phycs. 106, 107, and 108
7. Biol. 210
8. Mcbio. 200 and 201
9. At least 15 hours of 300-level microbiology courses, including at least one course from each of the following groups and at least one laboratory course:

   Group I: Mcbio. 316, 330, 331
   Group II: Mcbio. 309, 327, 351
   Group III: Mcbio. 311, 312, 326, 328

Recommended Cognate Study. Independent laboratory study (Mcbio. 290).

Departmental Distinction. In addition to the above requirements, candidates for distinction must submit a satisfactory senior research thesis (Mcbio. 292) and maintain a minimum grade-point average of 4.5 (A = 5.0) when fulfilling all the requirements. Contact the microbiology undergraduate adviser at the midpoint of the junior year. The department recognizes a single level of distinction.

PHYSIOLOGY OPTION

Life science courses: 23 hours minimum (200- and 300-level courses)
Basic science courses: 38-42 hours and 6 additional hours of calculus
Cognate courses: 3 hours of biochemistry

Physiology is a subdivision of experimental biology which is concerned with the analysis of function in living cells or organisms with particularly strong emphasis on regulation and integration. Specialities within the field include subjects related to behavior (integrative neurophysiology), the relations of lower organisms with their environment (comparative physiology or physiological zoology), the relations of the human species with its environment (ergonomics and human physiology), interrelations between and functioning of organ systems in the whole organism (mammalian physiology), and the fundamental molecular and cellular mechanisms of life (cell physiology and biophysics).

Numerous choices must be made amongst the physical sciences, physiology, and related areas of biology. Therefore, it is essential that a student concentrating in physiology consult with his or her adviser as early as possible and at frequent intervals. In addition to offering counsel for making these choices, the adviser is also the proper person to approve any substitutions in the following curriculum.

Requirements

1. Math. 120, 132 and 242 *or* 135 and 245 or equivalent
2. Chem. 107-109 *and* Chem. 108-110 (101 and 102 acceptable); Chem. 131 and 134
3. Bioch. 350 or Bioch. 352-353
4. Biol. 110 and 111 (or approved equivalent)
5. At least one year of physics (Phycs. 101-102 acceptable; Phycs. 106, 107, 108 recommended)
6. Biol. 210 (or approved equivalent)
7. Physl. 301 and 302; Physl. 303 and 304 (Physl. 290 research, Bioch. 355, or another laboratory course in physiology may be substituted for either 303 or 304, but not both)
8. A minimum of 9 additional advanced hours in physiology or biophysics chosen from the following:

   Biophysics: 301, 302, 354
   Physiology: 312, 316, 331, 341

Recommended Cognate Study. The following courses are recommended for cognate study:

Behavioral biology: Biol. 303; E.E.E. 212, 340, 346, 347, 350, 353, 354; G.&D. 304; Psych. 210, 217, 320, 343

Cellular and molecular biology: Biol. 303, 324; Chem. 346; G.&D. 213, 307, 309, 312; Mcbio. 200, 326, 330, 331; Phycs. 350; Pl. Bio. 335

Organismic biology: Biol. 303, 324; Bioen. 375; E.E.E. 232, 340; Entom. 301; G.&D. 211, 304, 309, 312; Psych. 210; Pl. Bio. 330, 345.

Quantitative biology: Biol. 371, 372, 373; Bioen. 308, 314, 315, 375; Chem. 346; G.E. 222; Phycs. 350; Psych. 320

Departmental Distinction. Candidates for distinction must enroll in Physl. 290 and, working with a departmental adviser, prepare a report based on laboratory or library research. This report will be submitted to a committee which will recommend the level of distinction.

PLANT BIOLOGY OPTION

Life science courses: at least 21 hours of 200- and 300-level courses
Basic science courses: 38-42 hours
Cognate courses: 10 hours chosen in consultation with an adviser

This option provides training for students who seek a broad plant science background in preparation for advanced work in plant biology or applied plant sciences. It provides opportunity for study of a wide variety of basic and applied specializations.

Requirements

1. Math. 120 or 135
2. Chem. 101 and 102 *or* Chem. 107-109 and 108-110; and Chem. 131-134
3. Pl. Bio. 100 and an additional lecture-lab course in life sciences, or Biol. 110-111
4. Phycs. 101 and 102; *or* Phycs. 106, 107 and 108
5. Plant taxonomy (Pl. Bio. 260), genetics (Biol. 210), plant physiology (Pl. Bio. 330), plant morphology (Pl. Bio. 304), and plant ecology (Pl. Bio. 381)
6. Individual study (Pl. Bio. 290 or 292) during the junior or senior year
7. Required cognate study: At least 10 hours of additional courses selected in consultation with a faculty adviser from the following: agronomy, biochemistry, biology, chemistry, entomology, forestry, geography, geology, horticulture, mathematics, microbiology, physics, physiology, and plant pathology. Other cognate fields may be considered through consultation with the individual faculty adviser.

Departmental Distinction. A student must maintain an average of 4.25 overall and 4.5 in life science courses and complete a senior thesis. See the adviser (by the junior year) for details.

Linguistics

Linguistics courses: 30 hours
Cognate courses: 6-8 hours of western civilization, plus 14 hours (chosen in consultation with an adviser)

The Department of Linguistics offers undergraduate instruction of two types.

1. **General linguistics** courses have two purposes: they are intended to prepare students for various careers in which the scientific study of language is of significance; they are, furthermore, the basis for continued professional training toward the M.A. and Ph.D. degrees in this field.
2. **Non-Western language** courses are offered regularly in Arabic, Hebrew, Hindi, Persian, and various African languages (Hausa, Lingala, Swahili, Wolof). One language, Hebrew, may be taken as an option of the field of concentration (see option 2 below).

REQUIREMENTS: OPTION 1 — GENERAL LINGUISTICS

Core Courses: Thirty hours, including Ling. 200, 225, 300, 301, and 302. The remaining core courses are to be selected from among other 200- and 300-level courses. Students are expected to take two additional courses in each of two special areas of linguistics, such as psycholinguistics, applied linguistics, sociolinguistics, mathematical and computational linguistics, non-Western language structure, and area linguistics (African, classics, Far Eastern, Gemanic, Indo-European, romance, Semitic, Slavic, South Asian).

Cognate Studies: Fourteen hours, in linguistically relevant courses in any one or more of the

following disciplines: anthropology, classics, computer science, English, English as a second language, French, Germanic, philosophy, psychology, Slavic, Spanish, Italian, and Portuguese, speech and hearing science, and speech communication. In addition, students are encouraged to take two years of a second foreign language in addition to the language used to satisfy the college foreign language requirement. This second language may be either a Western or non-Western language. Each student's program, including the selection of the special areas and second language credit, is to be worked out in consultation with the departmental adviser.

Western Civilization: Six to eight hours of western civilization (Hist. 111-112 or C. Lit. 141-142).

REQUIREMENTS: OPTION 2 — HEBREW LANGUAGE AND LINGUISTICS

This option provides the student with a broad knowledge of the Hebrew language, both modern and biblical, as well as with introductory training in general linguistics.

Core Courses: Thirty hours, including Ling. 200 and one other course in linguistics; Hebr. 305, 306, 307, 308; 8 hours of biblical Hebrew, chosen from Hebr. 205, 206, 210, 311. All substitutions must be approved by the coordinator of the option.

Cognate Studies: Fourteen hours, which should constitute a coherent program complementing the concentration in Hebrew language and linguistics. Possible cognates include Jewish culture and society, biblical literature, anthropology, classics, and the study of additional languages. The program of cognate studies will be planned by the student in conjunction with the Hebrew language coordinator.

Western Civilization: Six to eight hours of western civilization (Hist. 111-112 or C. Lit. 141-142).

Departmental Distinction: Candidates for the degree with Distinction must register their candidacy with their adviser no later than the beginning of the second semester of the junior year. The student must achieve a grade-point average of at least 4.4 (A = 5.0) for the required 30 hours in linguistics including at least 4 hours credit for individual study. For graduation with High or Highest Distinction, the same minimum requirements apply, plus the submission of a senior honors thesis to be submitted to the Department of Linguistics by the first day of the month preceding the month of graduation.

Mathematics (Concentrations in actuarial science, mathematics, and mathematics and computer science)

Actuarial Science

Mathematics courses: 18 hours (300-level courses)
Finance courses: 12 hours
Cognates/prerequisites: 10-11 hours of calculus and 3-4 hours of computer science

The field of concentration is designed to prepare students to enter the actuarial profession.

REQUIREMENTS

1. Calculus through Math. 242 or 245, or equivalent
2. C.S. 101, 105, or 121, or equivalent
3. Math. 310, 311, 369, 370 (or Math./C.S. 257)
4. Math./Stat. 308, 309
5. Math. 371, and either 372 or one of: Math. 313, 318, 344 or 347, 358, 365, 368, 376, 384; C.S. 221, 225, 300. (Replacement for Math. 372 needs adviser approval.)
6. Four finance courses chosen from Fin. 235, 237, 254, 260, 262, 360, 363, 370, and 371. Students should consult an adviser in selecting the courses.
7. Students are urged to elect Accy. 200 or 201, or B. Adm. 261 in their junior or senior year

Departmental Distinction. To qualify for Distinction, the student must take Math. 372, have a grade-point average in mathematics courses of at least 4.25, and pass one actuarial society examination. To qualify for High or Highest Distinction, the student must pass two exams, with Highest Distinction going to those whose grade-point average in mathematics is at least 4.75. Finance courses may also be given consideration in close decisions.

Mathematics

Mathematics courses: 24-30 hours beyond calculus
Cognates/prerequisites: 10 or 11 hours of calculus, 3 or 4 hours of computer science, and 8-10 hours chosen in consultation with an adviser

Mathematics is a broad discipline that contains a range of areas of specialization within it. The required courses in Part I provide fundamental background for mathematics in general. The options in Part II indicate several directions that can be taken in mathematics. Also see the fields of concentration in actuarial science, mathematics and computer science, and statistics, and the curriculum in the teaching of mathematics.

An entering student in mathematics should have academic preparation to enroll in Math. 120 during the first semester. Admission to Math. 120 requires a passing grade on the Mathematics Placement Test. Students should attain at least a 3.5 average in calculus courses if they expect to complete the advanced courses in the program successfully.

REQUIREMENTS

Part I: The following are required of all students:

1. Calculus through Math. 242, 245, or equivalent
2. Computer science (C.S. 101 or 121)
3. Intermediate analysis (Math. 247)
4. Abstract algebra (Math. 317)
5. Linear algebra (Math. 315 or 318)
6. Real analysis (Math. 344 or 347)
7. Probability-statistics (Math. 361/Stat. 351 or Math. 363/Stat. 310)

Part II: In addition, one of the following options must be completed:

Option 1: Graduate Preparatory. This option is for students who intend to continue their studies in graduate school. Different areas of mathematics can be emphasized. For example, students who have an interest in physical applications should take differential equations (Math. 341, 342) and cognate courses in physics. Students interested in discrete mathematics should take combinatorial analysis (Math. 313) and graph theory (Math. 312). Other areas are also possible.

1. Math. 318 and 347 should be chosen in Part I
2. Math. 348 and either Math. 323 or 332
3. Two additional mathematics courses numbered 290 or higher
4. At least 8 hours in a cognate subject

Option 2: Operations Research. This option is for students interested in management science, industrial planning, and related areas. This option also provides excellent preparation for graduate study in business administration, economics, or industrial engineering.

1. Math./C.S. 257
2. Math. 363/Stat. 310 should be taken in Part I, and either Math. 364/Stat. 311 or Math. 369/Stat. 320
3. Math. 383 and 384
4. Either Math. 312 or 313
5. At least 8 hours in economics, business administration, and industrial engineering

Option 3: Theory of Computation. This option is for students interested in the theoretical aspects of computer science. This option prepares students for graduate study in mathematics or computer science or for work in computer industries.

1. Nine hours of computer science beyond C.S. 121, including C.S. 273
2. Math. 319, Math./C.S. 373, and Math./C.S. 375
3. One additional course chosen from Math. 312, 313, 314, 377, 383, 384

Option 4: General Mathematics. This option permits emphasis in a variety of directions. Choice of mathematics courses and related cognate courses can provide preparation for work in economics, geology, psychology, physics, and many other fields in business, industry, and government.

1. Three additional courses in mathematics numbered 290 or higher
2. At least 10 hours in a cognate subject

Departmental Distinction. Distinction will be awarded on the basis of selection of 300-level courses in mathematics and grade-point average.

Mathematics and Computer Science

This concentration is sponsored jointly by the Departments of Mathematics and Computer Science. See page 250.

Music

Music courses: 37-41 hours (excluding keyboard skills requirement)
Cognate courses: 11-12 hours (chosen in consultation with an adviser)

The field of concentration in music is designed for students whose academic interests are broader or more compelling than can be accommodated within the several FAA music programs (page 224). This program, which incorporates a high degree of flexibility beyond the core of required courses, is not professionally oriented, but can prepare the way for graduate study in music theory, composition, or the various branches of musicology.

REQUIREMENTS

All students in the music concentration must complete or proficiency the following core of courses for a total of 29 to 31 credit hours:

Music 101-104, 107-109, and one 300-level music theory course;
Music 110, 213-214, and one 300-level musicology course.

All students in the concentration must, in addition, possess or acquire some mastery of keyboard skills, which may be demonstrated by successfully completing Music 160-161, or through an appropriate audition. (Students who wish to pursue studies in applied music are required to satisfy the instrumental or vocal qualifying audition designed for students outside the School of Music; credits earned in applied music beyond the keyboard requirement stated above are generally considered elective.) Students in this program may not use hours from Music 100 toward the minimum 120 hours for graduation. Normally, students begin the study of music theory with Music 101.

The remainder of the program, consisting of at least 8 to 9 additional hours of upper-level music courses and 11 to 12 hours of cognate work in other fields, is planned by the student with the help of a departmental adviser of his or her choice, subject to the approval of the departmental advising chairperson. Three general options are available in the music concentration: music history, ethnomusicology, and music theory/composition. The choice of courses within these options may vary considerably according to the interests of the student. The following models illustrate the types of programs recommended but specify neither absolute requirements nor limitations.

Music History Option

1. With emphasis on *medieval/Renaissance music.*
   a. Music 307, 308 and either 310 or 311.
   b. Cognate courses chosen from Hist. 111, 112, 203, 204, 304, 305 (or 332 and 333);
      A course in medieval or Renaissance literature (e.g., Engl. 202, 204, C. Lit. 204);
      Art Hi. 111;
      Lat. 101, 102.
2. With emphasis on *music since the Renaissance.*
   a. Music 308, 313, 314, 315.
   b. Cognate courses chosen from Hist. 111, 112, 309, 310 (or 312, 313), 324;
      Engl. 206 and 207;
      Art Hi. 112.

Ethnomusicology Option

1. With emphasis on *American Indian cultures.*
   a. Music 308, 317 (6 hours) and one additional course from the series 310-315.
   b. Cognate courses chosen from Anth. 103, 230, 331, 332 (or 333 or 361);
      Relst. 363;
      Hist. 151, 152.
2. With emphasis on *India and Middle Eastern culture.*
   a. Music 308, 317 (6 hours) and one additional course from the series 310-315.

b. Cognate courses chosen from Anth. 103, 230, and 368.

3. With emphasis on *African and Afro-American cultures.*
   a. Music 308, 317 (6 hours) and one additional course from the series 310-315.
   b. Cognate courses chosen from Anth. 103, 230, and 261;
      One sequence in Afro-American history such as Anth. 367 and Hist. 215 or Hist. 253-254.

Music Theory/Composition Option

1. With emphasis on *music theory.*
   a. Music courses chosen from Music 300-309.
   b. Cognate courses chosen to include Math. 118;
      One course in English composition (e.g., Rhet. 133 or equivalent);
      One course in philosophy with emphasis on aesthetics (e.g., Phil. 101, 102, 105, or 323).
2. With emphasis on *composition.*
   a. Music 106, 204-206, 306.
   b. Cognate courses chosen to include Math. 118;
      One course in English composition (e.g., Rhet. 133 or equivalent);
      One course in philosophy with emphasis on aesthetics (e.g., Phil 101, 102, 105, or 323).

Departmental Distinction. Students interested in attaining departmental distinction should consult with the honors adviser no later than the second semester of their junior year. In order to be eligible for departmental distinction, a student must have a cumulative grade-point average of 4.4 or above (at the end of the sixth semester) and must complete 4 hours of Music 229 — Thesis and Advanced Undergraduate Honors in Music. Distinction will be recommended at the discretion of the faculty after an evaluation of the student's overall record and the completed thesis.

Philosophy

Requirements: 44 hours, including
Philosophy courses: At least 23 hours
Cognate courses: At least 12 hours
Western civilization sequence: 6-8 hours as listed

Philosophy is the oldest, broadest, and most fundamental form of inquiry. Some philosophical questions have to do with the understanding of ourselves and whatever else there may be. Others concern the nature of different forms of knowledge and experience. And others have to do with ethical issues and problems of value. The study of philosophy is one of the most important elements in a good liberal education. Philosophical training is also very useful in that it improves one's ability to think clearly and to construct, analyze, and criticize arguments of any kind.

REQUIREMENTS

The concentration in philosophy involves taking a minimum of 44 hours of philosophy and cognate course work and consists of four parts: (1) the core philosophy courses (14 hours); (2) a cognate program, involving at least 12 hours of course work in some other department(s); (3) a Western civilization sequence (6-8 hours); and (4) at least 9 hours of further course work in philosophy beyond the 100 level, including at least two additional 300-level courses.

1. **Core philosophy courses.** If possible, concentrators should take these courses prior to their senior year.
   a. Either Phil. 102 (Logic and Reasoning) or Phil. 202 (Symbolic Logic). Students planning graduate work in philosophy should take 202.
   b. Phil. 203 (Ancient Philosophy).
   c. Phil. 206 (Early Modern Philosophy).
   d. Phil. 321 (Ethics and Value Theory).
2. **Cognate course work.** A concentrator may select either of two types of cognate program and should work out a specific program of the type chosen with the help and approval of a department adviser.

   Option I: Intensive study in another discipline. This comprises a minimum of 12 hours of course work, normally beyond the 100-level, in one other discipline.

   Option II: A special program of study built around a unifying theme or topic. This will

involve a minimum of 12 hours of course work outside of philosophy in one or more other discipline(s), normally beyond the 100-level, together with one or more philosophy course(s) related to the theme or topic. The program may focus upon an historical period, a certain subject (e.g., language, politics, science, religion, art), or a particular philosophical problem, with outside course work in appropriate disciplines.

3. **Western civilization sequence.** To ensure that they have a general knowledge of western civilization, all students in philosophy must take an approved two-semester sequence in western civilization—currently either Hist. 111-112 or C. Lit. 141-142.
4. **Further course work.** The remainder of a student's concentration is planned by the student with the help and approval of an adviser. It may include additional cognate courses but must enable the student to satisfy the requirement of a total of at least 9 hours of course work in philosophy beyond the 100-level (including at least two 300-level courses) in addition to the core courses.

Departmental Distinction. Concentrators may become eligible for graduation with distinction in philosophy in two ways: by pursuing either the *thesis option* or the *course work option.* (1) The *thesis option* involves taking a total of at least 28 hours of course work in philosophy and writing a thesis. (2) The *course work option* involves taking at least 35 hours of course work in philosophy and accumulating a grade-point average in all philosophy courses taken of at least 4.5. Further information is available in the department office.

Physics

Physics courses: 20 hours (200- or 300-level courses)
Cognates/prerequisites: 11 (or 10) hours of calculus, 12 hours of general physics, and 20 hours (chosen in consultation with an adviser)

This field of concentration allows students maximum flexibility to develop scientifically oriented careers in fields requiring a physics background. See also the Engineering Physics, LAS Physics, and LAS Teaching of Physics curricula.

REQUIREMENTS

1. General physics and calculus satisfied by the sequence Phycs. 106, 107, and 108, or equivalent, together with the sequence Math. 120, 132, and 242, or equivalent.
2. Twenty hours of 200- or 300-level physics courses including Phycs. 210, 331, 332, 333, and excluding Phycs. 319.
3. Twenty additional hours of courses oriented toward physical science selected with departmental approval from the following areas, with at least two courses in each area chosen: astronomy, atmospheric sciences, chemistry, computer science, various branches of engineering, environmental sciences (see departmental office for listing), geology, life sciences, mathematics, philosophy, social sciences, and education oriented toward the teaching of science.

Departmental Distinction. Same as those listed under the curriculum in physics. See page 287.

Political Science

Political science courses: 27 hours (including Pol. S. 150)
Cognate courses: 20 hours (chosen in consultation with an adviser)

The Department of Political Science encourages students to acquire a broad understanding of political science and to pursue in depth selected subfields of the discipline. To accomplish these objectives, the department provides courses of study that introduce students to the discipline and to its principal fields. Among these are American government, politics, and administration; comparative government, politics, and administration; international relations, organization, and foreign policy; normative theory; and political behavior and empirical theory. Cognate courses are an integral part of the program and should be selected with a view toward building a coherent selection adapted to the student's particular needs.

REQUIREMENTS

The field of concentration in political science requires 47 hours. Of these, 27 hours must be within the Department of Political Science. They must include the following:

1. Pol. S. 150

2. Any three of the courses Pol. S. 100, 240, 260, 270, 280
3. At least four courses at the 300 level. (Most 300-level courses will require as a prerequisite the appropriate 200-level course [or, in the case of American politics courses, 150] or consent of instructor.) Up to 6 hours of credit in Pol. S. 299 may be substituted for 300-level credit. Pol. S. 296 counts for this purpose as a 300-level course.

Not more than 6 hours of individual study courses in political science may be included in the field of concentration. Pol. S. 293 is reserved for those seniors doing honors theses for distinction in political science and may not be counted in the 47-hour minimum required for the field of concentration.

Outside the department, at least 20 cognate hours are required in a field or fields to be selected in conjunction with the student's adviser. Cognate courses should complement subfield concentrations in political science chosen by the student. At least 12 of these 20 hours *must* be at the 200-level or above.

Departmental Distinction. Concentrators earn distinction in political science with a 4.25 grade-point average in political science courses that must include 4 hours of Pol. S. 293 (senior honors thesis). See departmental academic adviser for details.

Portuguese

This concentration is sponsored by the Department of Spanish, Italian, and Portuguese. See page 281.

Psychology

Psychology courses: 32 hours (including an introductory course)
Cognate courses: 12 hours (chosen in consultation with an adviser)

Psychology is the scientific study of human and animal behavior. Psychologists study behavior in systems ranging from single cells to the individual person, from small groups to communities. Psychologists strive to describe behavior and to understand its underlying biological and social mechanisms. This enterprise, designed to better understand human behavior, accumulates knowledge that can help solve problems faced by individuals and by communities.

Some specializations in psychology:

Biological psychology is the study of the biological mechanisms underlying behavior. Biological psychologists generally are interested in the brain and the nervous system, in the endocrine system, and in other organismic processes.

Clinical psychology is the study of problems encountered by individuals, groups, and families — especially problems involving psychopathology. Clinical psychologists are interested in the application of psychological knowledge and techniques for the alleviation of these problems.

Community psychology is the study of social processes and problems of groups, organizations, and neighborhoods, and the development and evaluation of progress for social change and social policy based on psychological understanding.

Developmental psychology is the study of intellectual development, emerging personality, the acquisition of language, as well as psychophysiological and social development processes as individuals develop from birth through old age.

Engineering psychology uses scientific study to develop an understanding of human behavior, and to improve the efficiency of interactions between humans and machines.

Experimental psychology is the study of basic behavioral and cognitive processes, including learning, memory, perception, attention, problem solving, motivation, and psycholinguistics.

Measurement and mathematical psychology specialists develop mathematical models of psychological processes and devise methods for quantitative representation and analysis of data about behavior. These are used in the study of differences between individuals in ability, personality, preferences, and other psychological phenomena.

Personality psychology focuses on individual behavior. It is the study of ways to understand and describe an individual's behavior and to predict an individual's future behavior.

Personnel psychology is the application of techniques of assessment, prediction, and intervention to areas of human resources in organizations, including, but not limited to, standard personnel selection and training, attitude assessments and interventions, and program evaluations.

Social psychology is the study of attitudes, social perception and cognition, interpersonal relations, interpersonal interactions, and social and cultural factors affecting human behavior.

REQUIREMENTS

Core Requirements. A minimum of 32 hours in psychology including 12 hours of advanced courses. Advanced courses in psychology include 291, 293, 294, 297, 298, and all 300-level courses.

1. Introductory course in psychology (100, 103, or 105).
2. Statistics for psychologists (235 or equivalent).
3. Two courses from the following: Psych. 210 (Mind and the Brain), 217 (Comparative Psychology), 224 (Cognitive Psychology), 230 (Perception and Sensory Processes), 248 (Learning and Memory), 258 (Human Factors in Human-Machine Systems).
4. Two courses from 201 (Social Psychology), 216 (Child Psychology), 238 (Abnormal Psychology), 245 (Industrial Psychology), 250 (Psychology of Personality).
5. A course in psychology research methods which may be satisfied by any course listed below with an asterisk or by Psychology 211 or 231.
6. One course from each of the following 300-level groups:
   a. *Biological and experimental psychology:* Psych. 311*, 313, 314, 315, 320, 324, 325, 326, 329, 330*, 331*, 342, 345*, 347*, 348, 356, 360.
   b. *Industrial, measurement, and social psychology:* Psych. 332*, 333*, 335, 352, 353, 354, 355, 357, 358, 359, 371, 373, 375, 390*.
   c. *Developmental, personality and social ecology, and clinical psychology:* Psych. 318, 323, 336, 337, 350*, 362, 363*, 365, 368, 380.

Note: A course may be used to fulfill both the research methods requirement and a specific group requirement.

Cognate Requirements. A minimum of 12 hours is required in course work outside of psychology that will complement the core program. These courses must be approved by an academic adviser.

UNDERGRADUATE AREAS OF EMPHASIS

A number of emphases within the field of concentration in psychology are designed for students who are seeking a general liberal arts degree, an applied degree, or a degree that will provide a solid academic background in preparation for graduate education in psychology and related fields. Lists of the required and suggested courses are available from the Psychology Undergraduate Advising Office.

General psychology is designed for students interested in a broad liberal arts education with psychology as a focal area and for students who plan to attend a graduate or professional school in fields other than psychology. Examples of these specializations include premedicine, prelaw, and preparation for graduate work in fields such as social work, business administration, and labor relations.

Applied psychology is for students interested in learning skills necessary for jobs in certain service areas that require a bachelor's degree only. The following programs are available:

1. *The Mental Health Workers Program* is designed to develop knowledgeable and experimental mental health practitioners capable of providing direct services to clients as well as supervise lower-level staff in the implementation of treatment programs. Training includes a core of general and mental health–related psychology courses and a series of field placements.
2. *The Developmental Child Care Program* is designed to prepare specialists who will be working with children, including children with special needs such as those who are maltreated, hospitalized, and delayed in physical and/or mental development, and children with problems in social/emotional adjustment.

Graduate preparatory in psychology is designed mainly to provide students with a solid academic background that will prepare them for graduate education in a number of psychology specializations. Career opportunities in these specializations vary as does the required level of graduate school training. While a doctorate is needed for most areas of academic psychology, a master's degree is sufficient for careers in many applied psychology fields such as Personnel Psychology, Measurement Psychology, and Engineering Psychology.

A Combined Engineering–Liberal Arts and Sciences Five-year Program leading to bachelor's

degrees from both colleges (see page 238) is available with a psychology concentration. Psychology and cognate courses, including allied courses in personnel psychology, are combined with the student's engineering curriculum to provide a specialization in engineering psychology. Tailored to complement the engineering curriculum, this program can be of potential benefit to the student's engineering career or used as the foundation for graduate training in engineering psychology. An engineering psychology program might include Psych. 103, 158, 230, 235, 245, 248, 258, 301, 356, 357, and 330 or 390.

Departmental Distinction. Graduation with departmental distinction requires successful completion of the department's undergraduate honors program. This program is a three-semester pattern of courses designed to offer promising undergraduates an opportunity to do sustained scholarly work in a specific research project, culminating in the preparation of a bachelor's thesis. Consult the Undergraduate Advisory Office for details.

ACADEMIC ADVISING

The Psychology Undergraduate Advising Office is open to help students choose patterns of courses relevant to the various concentration options and specializations, as well as to help students explore graduate school, professional school, and career options. Advising is done by the faculty and a staff of academic counselors.

A Psychology Student Information Center (PSI Center), staffed by student volunteers, provides student-to-student information about various department and community educational opportunities, career and graduate school planning, and related information.

Religious Studies

Religious studies courses: 24 hours (minimum)
Cognate courses: 6-8 hours of Western civilization, together with sufficient courses to total at least 48 hours for the concentration

The first area below, Religion and Culture, is designed for students seeking a broad liberal arts education with a focus in religious studies. Persons thinking of the ministry or rabbinate are encouraged to consider this area seriously. It should be recognized that the high number of hours involved amounts to offering more than the usual guidance in the choice of electives.

The last five areas are designed especially for students thinking about graduate work in one of the traditional areas of religious studies.

REQUIREMENTS

Core Courses (eight courses)

1. Rel. St. 110 — Comparative perspectives
2. Rel. St. 201, 202 — Biblical studies
3. Rel. St. 104 or 122 — Asian religion
4. Rel. St. 102 or 230 — Critical perspectives
5. Rel. St. 120 (or 121 or 130) — Judaism or Christianity (chosen in consultation with the undergraduate adviser)
6. Western civilization requirement — Hist. 111 and 112 *or* C. Lit. 141 and 142

Area of Specialization (eight to ten courses).

The following programs are examples of acceptable patterns for a concentration in religious studies. Any coherent program worked out in consultation with an adviser is permitted. A careful use of independent studies courses (Rel. St. 290) is also encouraged for the development of suitable concentrations.

Religion and Culture (ten courses)

1. Two semesters of an appropriate language (e.g., Greek, Hebrew, Chinese, or German) chosen in consultation with the undergraduate adviser.
2. Religious studies — three courses (200-level or higher).
3. Cognate courses — five related courses (three beyond the 100-level) in the social sciences (anthropology, psychology, sociology); arts; and humanities, with at least one course in each category.

Philosophy of Religion (eight courses)

1. Religious studies — four courses (200-level or higher, including 362).

2. Cognate courses — four courses (three over the 100-level) in philosophy.

Western Religion (eight courses)
1. Two semesters of an appropriate language (e.g., Greek, Hebrew, Latin or German) chosen in consultation with the undergraduate adviser.
2. Religious studies — three courses (200-level or higher) including one course in Islam.
3. Cognate courses — three related courses (all over the 100-level) in the history, literature, and art of the Western cultural traditions.

Asian Religions (ten courses)
1. Language — four courses (e.g., Chinese, Japanese, or Sanskrit).
2. Religious studies — three courses (200-level or higher) in Asian religions.
3. Cognate courses — three courses (two over the 100-level) in either the East Asian or South Asian areas.

Biblical Studies (nine courses)
1. Language — four courses (Hebrew or Greek).
2. Religious studies — two courses (200-level or higher) in the area of biblical studies.
3. Cognate courses — three related courses (all over the 100-level).

Judaica (ten courses)
1. Language — four courses (Hebrew, classical or modern).
2. Religious studies — three courses (200-level or higher) in Judaica.
3. Cognate courses — three related courses (all over the 100-level).

Advanced Hours Requirement. Students must elect, as a part of their area of concentration, a minimum of 12 hours in 300-level courses or in 200-level courses approved specifically for advanced hours credit.

Departmental Distinction. Distinction in the program is granted on the basis of excellence in religious studies demonstrated in course work and a senior thesis written in the context of Rel. St. 293. The final determination of Distinction is by vote of the faculty of the Religious Studies Program.

Rhetoric

This concentration is sponsored by the Department of English. See page 252.

Russian

Russian courses: 30 hours (beyond the 100-level)
Cognate courses: 20 hours (chosen in consultation with an adviser), including 6-8 hours of Western civilization

Russian is spoken by some 250 million people and is used by many more in the USSR and the countries of Eastern Europe. Russian is now second only to English as the language of science, and it is also the language of one of the world's great literatures. Persons trained in Russian normally find employment in teaching, government service, journalism, and in research in many areas. Many students majoring in other fields find it useful to learn Russian as a valuable research tool.

The field of concentration in Russian consists of at least 50 hours distributed as follows:

1. At least 15 semester hours of Russian language from the following courses: Russ. 211, 212, 213, 214, 290, 303, 304, 313, 314. Six hours must be at the 300-level.
2. At least 15 semester hours of Russian literature and linguistics from the following courses: Russ. 215, 216, 217, 222, 225, 307, 308, 315, 317, 324, 335, 337, 338, 360, 370, and 375. Russ. 215, 216, and either 315 *or* 317 are required. Students concentrating in Russian will be required to read parts of the required material for courses on literature in translation in the original.
3. At least 20 semester hours of cognate courses distributed as follows — 6-8 hours of Western civilization (either Hist. 111-112 or C. Lit. 141-142) and one of the following:
   a. Twelve to 14 hours of courses at the 200- or 300-level in a single language other than Russian.
   b. Twelve to 14 semester hours of courses in European literature.

c. Russ. 113, 114, Hist. 219, and any two of the following courses: Anth. 381; Econ. 357; Geog. 353; Hist. 320, 321, 325, 326, 327, 328; Pol. S. 335, 383; Slav. 319 (cinema); Soc. 350.
d. Twelve to 14 hours of intellectually or professionally coherent combination of courses approved by the departmental adviser.

Departmental Distinction. Upon graduation, concentrators must have a grade-point average of at least 4.30 in departmental courses to qualify for the various levels of distinction and must take Russ. 293 (Senior Honors Thesis). By the second semester of their junior year, potential candidates are urged to see the departmental adviser for further details.

Russian and East European Studies

Requirements: 56 hours (minimum)

Two specializations are offered: one in Russian language and area studies and another that broadly focuses on Eastern Europe as well as Russia and the U.S.S.R. The aim of each specialization is to provide the student with (a) a base in one discipline that will permit him or her, without much additional work, to qualify for graduate study; (b) an interdisciplinary focus on the geographic area selected; and (c) a start toward the language training needed for the area chosen.

SPECIALIZATION IN RUSSIAN LANGUAGE AND AREA STUDIES

1. At least 16 hours of Russian language courses or equivalent proficiency are required. This requirement may be met by completing Russ. 104. Persons contemplating graduate work in this field are advised to learn as much Russian as soon as possible during their undergraduate years.
2. At least 20 hours in courses that focus on Russia or the Soviet Union are required, including at least one course from each of three departments other than the department used for component (3). Although some of the courses used to count under (2) may be from the same discipline as those under (3), any one course can be counted in only one category rather than in both. Courses currently being offered that focus entirely on Russia and the U.S.S.R. include: Anth. 381, 382; Econ. 357; Geog. 353; Hist. 219, 320, 321, 326, 327, 328; Pol. S. 335, 383; Russ. 113, 114, 115, 116, 199, 222, 225, 315, 317, 324, 335, 337, 338, 360, 370; Soc. 350. Others may be counted with permission of the center director.
3. At least 20 hours in a single discipline are required. Among those disciplines that are most commonly used with this specialization are anthropology, economics, geography, history, political science, Russian, and sociology. Among disciplines also used are business administration, education, English, fine arts, French, German, journalism, linguistics, mathematics, philosophy, psychology, and various natural sciences. Others are permitted. If a foreign language is used for this component, 20 hours must be taken beyond the introductory courses (i.e., normally the first two years, or the 101-104 sequence). Students are expected to obtain the advice of a faculty member in their chosen discipline to help in the planning of this part of their program.

SPECIALIZATION IN EAST EUROPEAN AND RUSSIAN STUDIES

1. At least 16 hours (normally two college years) or equivalent proficiency in one approved language (usually Russian), plus at least two semesters or equivalent proficiency in a second approved language are required. Approved languages are languages used to a significant extent in Eastern Europe or the Soviet Union or for the study of those areas. The choice is to be made in consultation with the center director, who will take into account the student's educational goals. Professional work in these areas usually requires extensive language training.
2. At least 20 hours in courses focusing on Eastern Europe as well as Russia are required. (See 2 above.) Courses especially recommended also include: Hist. 329, 330; Pol. 345, 346; Pol. S. 346; Slav. 319; Ukr. 398.
3. At least 20 hours in a single discipline are required. See (3) above.

Among the East European languages offered in addition to Russian are Bulgarian, Czech, Hungarian, Polish, Rumanian, Turkish, Serbo-Croatian, and Ukrainian. Others, such as Latvian,

Lithuanian, Macedonian, Modern Greek, Slovenian, and Uzbek, may be studied under special arrangements, including those provided by the center.

Additional Courses. In addition to courses that deal wholly with Eastern Europe or the USSR and are mentioned under both specializations, there are many others devoted to Russia and Eastern Europe that are normally taught by faculty members who have some knowledge of East European languages. They may be counted toward the above specializations if the center director approves. In cases where only a small fraction of a course deals with Russia or Eastern Europe, partial credit toward specialization requirements may be given. Students may consult the center director for further information on such courses.

Departmental Distinction. Students who hope to qualify for distinction in the field sponsored by this center should consult with the center director at the beginning of the junior year or earlier to prepare a suitable plan. This plan will usually include the writing of a substantial research paper in consultation with a faculty member of the center.

Sociology

Sociology courses: 30 hours (including Soc. 100)
Cognate courses: 12 hours (chosen in consultation with an adviser)

Sociology is concerned with the explanation of human social behavior. Its scope is broad, from the social forces shaping changes in entire societies and even the world as a whole, to social relations among individuals. In studying phenomena ranging from wars and revolutions to love and family structure, sociologists develop theories and conduct research to obtain a greater understanding of the social processes that shape our lives.

REQUIREMENTS

The field of concentration requires at least 42 hours, of which 30 are in the Department of Sociology and 12 (the cognate) are outside the department. The sociology hours include a *core* of four required courses:

The introductory course (Soc. 100)
Sociological theory (Soc. 200)
Social statistics (Soc. 185)
Survey research methods (Soc. 281 or 381)

For the remaining 18 hours of sociology, concentrators may choose *general sociology,* taking various courses, or they may choose an *area of specialization.* An area of specialization allows students to focus their sociology studies toward their interests and goals. In each area of specialization, the 18 hours must include at least two courses from a specified list (available from the Department of Sociology office).

The areas of specialization are:

Criminology
Family and Community
Health and Medicine
Industry, Work, and Occupations
International Studies
Population Studies
Pre-law
Social Psychology
Science and Technology
Research Methods/Social Statistics
Social Service and Government

Examples of requirements for two areas of specialization follow. Suggested patterns of both sociology and cognate courses recommended for other specializations may be obtained from the Department of Sociology office.

Health and Medicine. Recommended for students interested in medical and health-related professions. Students must take at least two of the following: Soc. 264, 333, 337, 338, and 339. Approved cognate courses may be chosen from among the following: anthropology, health and safety studies, psychology, social work, and life sciences.

Criminology. Recommended for students interested in professions related to the criminal justice system. Students must take at least two of the following: Soc. 231, 317, 324, 331, and 358. Cognate courses may be chosen from political science, psychology, and related fields.

Cognates. Cognates are designed to expand the student's education in social science or to help prepare for professional school or a career. All cognate courses are taken outside the Department of Sociology. A student may have a cognate in one department, such as psychology, economics,

history, or statistics. Alternatively, he or she may assemble a cognate from courses related to a profession, such as law, social work, business, or medicine.

Advising. Concentrators should see a departmental adviser at least once a year to choose sociology courses, to develop a cognate, and to monitor progress.

Departmental Distinction. To graduate with distinction, a student must have a grade-point average of at least 4.5 and must complete a senior honors thesis. See an undergraduate adviser for details.

Spanish, Italian, and Portuguese

Spanish, Italian, or Portuguese courses: 26-27 hours (depending on concentration)
Cognate courses: 15-18 hours (chosen in consultation with an adviser, total of 44 hours, plus 6-8 hours of Western civilization)

SPANISH

The field of concentration requires 44 hours distributed as follows:

1. At least 27 hours in Spanish courses beyond the 100-level, of which the following (or equivalent) must be included: Span. 200, 209, 211, 217, 232, 233, 240, 241, 242, 298 and at least one course at the 300-level. Graduate-level courses (for example, 405, 417, 424, 432, and 453) may be open to undergraduates with the consent of the instructor and the Graduate College.
2. At least 15 to 17 hours, chosen in consultation with an adviser, in one related area (or a combination with no less than 8 hours each) to complete the required 44 hours. Possible cognate areas are: any of the other modern or ancient languages and literatures that are appropriate to individual interests; humanities (comparative literature, comparative religion, linguistics, philosophy); social sciences (anthropology, geography, history, Latin American studies, political science, sociology); education; fine arts; journalism. Other possibilities can be approved in individual cases.
3. Western civilization: Hist. 111-112 or C. Lit. 141-142.

Year Abroad Program: See page 240.

ITALIAN

The field of concentration requires 44 hours distributed as follows:

1. At least 26 hours in Italian courses beyond the prerequisites of Ital. 101-104, chosen from Ital. 209, 211, 212, 221, 309, 321, 322, 331, 333, or another 300-level course. Ital. 199, 290, and 293 may be included with the approval of the undergraduate adviser of Italian and the course instructor. Students are advised that graduate-level courses (for example, 451, 452, and 462) may be open to them with the consent of the instructor and the Graduate College.
2. At least 15 to 18 hours, chosen in consultation with an adviser, in one related area (or a combination of two or three, with no fewer than 8 hours in each) to complete the required 44 hours. There is a wide choice in cognate courses since the student's interests may vary from Italian language and literature to international banking, law, art history, music, or painting. The following are possible cognate areas: any of the other modern or ancient languages and literatures which may be appropriate to individual interests; humanities (comparative literature, comparative religion, linguistics, philosophy); social sciences (anthropology, geography, history, Latin American studies, political science, sociology); education; fine and applied arts (architecture, art history, fine arts); journalism. Other possibilities can be approved in individual cases.
3. Western civilization: Hist. 111-112 or C. Lit. 141-142.

PORTUGUESE

The field of concentration requires 44 hours distributed as follows:

1. At least 26 hours in Portuguese courses beyond the prerequisites of Port. 101-104, including Port. 212, 222, 301-304, and 362. Port. 199 and 290 may be included with the approval of the undergraduate adviser for Portuguese and the course instructor. Students are advised that graduate-level courses (for example, 407, 462, and 491) may also be open to them with the consent of the instructor and the Graduate College.
2. At least 15 to 18 hours, chosen in consultation with an adviser, in one related area (or no

fewer than 8 hours in each of two) to complete the required 44 hours. There is a wide choice of cognate courses since the student's interests may vary from Iberian literature to animal husbandry in Angola and urbanology in Brazil. The following are possible cognate areas: any of the other modern or ancient languages and literatures that may be appropriate to individual interests; humanities (comparative literature, comparative religion, linguistics, philosophy); social sciences (anthropology, geography, history, Latin American studies, political science, sociology); education; fine and applied arts (architecture, art history, fine arts); journalism. Other possibilities can be approved in individual cases.

3. Western civilization: Hist. 111-112 or C. Lit. 141-142.

Departmental Distinction. To be considered for departmental distinction, students must maintain a 4.5 grade-point average and must complete the appropriate senior thesis course. Prospective candidates should consult with the honors adviser by the beginning of their senior year to name a thesis director. Departmental distinction is determined through consultation between the thesis director and the honors adviser.

Speech and Hearing Science

Speech and Hearing courses: 30 hours, as specified below
Cognate courses: 24 hours, chosen in consultation with an adviser

This field provides a broad background in the biological, behavioral, linguistic, and social foundations of human communication. Students who have a particular interest in the general area of speech, language, or hearing may use this field of concentration primarily as a liberal arts background with the intent of pursuing graduate education in speech and hearing or in a related field.

REQUIREMENTS

1. Thirty hours of speech and hearing science, to include Sp. H.S. 102, 301, 375, 376, 378, 383, 385, and 390.
2. Twenty-four hours of courses selected with departmental approval in any of the following departments: computer science, electrical engineering, linguistics, mathematics, physics, physiology, psychology, and speech communication.

Note: Students may use up to 6 hours of Sp. H.S. 290 as free electives toward the bachelor's degree.

Departmental Distinction. To graduate with distinction, a student must have an overall grade-point average of at least 4.25 (A = 5.0) and 4.5 in speech and hearing courses, and must register in the honors course (Sp. H.S. 291) for 4 hours credit. Additional information for graduation with distinction is available in the department office.

Speech Communication

Speech communication courses: 29-36 hours
Cognate courses: 12-19 hours approved by an adviser (for a total of 48 hours in the concentration)

Speech communication embraces various studies of the use of language and speech for social purposes. Concentration in the field serves many students as preprofessional education and others as the core of a liberal education. The curriculum reflects concern for the theory, practice, and criticism of communication in varied settings: interpersonal interaction, public discourse, group and organizational communication, and some literary and artistic forms. The Department of Speech Communication offers two options within its field of concentration: rhetorical and communication theory, and interpretation. The field of concentration consists of a minimum of 48 hours distributed as follows.

1. A minimum of 29 hours in courses in speech communication, at least 15 of which must be at the 200-level or above.
2. A minimum of 12 hours in cognate courses chosen from departments or programs whose offerings are appropriate to the option selected. Students must obtain the approval of a speech communication adviser for their programs of courses.
3. A minimum of 7 additional hours in speech communication or cognate courses selected in consultation with an adviser.

RHETORICAL AND COMMUNICATION THEORY OPTION

This option provides a broad acquaintance with theory, practice, and criticism in rhetorical and communication theory.

Requirements. The student must take at least one speech communication course from each of the following areas:

1. Interpersonal and small group communication: Sp. Com. 113, 211, 230, 313, 332, 335.
2. Persuasion and social influence: Sp. Com. 213, 221, 223, 320, 321, 324.
3. Rhetorical theory: Sp. Com. 102, 210, 315, 317, 322.
4. Criticism of public discourse: Sp. Com. 177, 252, 253, 254, 323, 350, 353.

Additional hours in speech communication and in cognate fields will be chosen in consultation with, and with the approval of, a departmental adviser. The resulting program may be distributed among the four areas listed above, or it may be a specialized program organized around a theme or topic.

INTERPRETATION OPTION

Requirements.

1. The student must take Sp. Com. 141, 142, 161, 243, 255, 342, 344, and 345.
2. The student must elect at least 18 hours in literature courses approved by a speech communication adviser. These should include a course in Shakespeare, a course in American literature, a course in English literature before 1800, and a course in English literature from 1800 to present.
3. Additional hours in speech communication and in cognate fields will be chosen in consultation with, and with the approval of, a speech communication adviser.

Departmental Distinction. Superior students are encouraged to consult the departmental honors adviser about requirements and opportunities for participation in the departmental honors program.

Statistics

Statistics and mathematics courses: 10-17 hours of calculus and elementary course work, and 18-24 hours of 300-level courses
Cognate courses: 12 hours of approved courses in an area of statistical application

Statistics is the science of modeling, summarizing, and analyzing data, and of using mathematics and computing tools to make predictions and decisions in the face of uncertainty. Statistical ideas are applicable in any area involving quantitative measurement and in almost every area of scholarly pursuit. The field of concentration is designed to provide students with an understanding of the concepts of statistical inference and a familiarity with the methods of applied statistical analysis. It can be used as preparation for a career in business, industry, or government, or as a preparation for further graduate study in statistics or in a related area.

REQUIREMENTS[1]

1. Calculus through Math. 242 or 245 or equivalent.
2. Math. 315 or 318.
3. Math. 247 or 343 (*advanced calculus*).
4. Stat. 310 and 311 (*statistical inference I-II*).
5. Stat. 324 or 325 (*linear models*).
6. Three courses chosen from the following lists, at least two of which must be from list (a):
   a. Other statistics courses: Stat. 326, 327, 328, 329, 330, or Math. 366, or the course in (5) not used for requirement (5).
   b. Preparation for post-graduate study: Math. 346 or 348, Math. 344 or 347.
7. A working knowledge of a programming language (satisfied, for instance, by C.S. 101, or 105, or 121).
8. Cognate: At least 12 hours in a secondary subject where statistical methods are applicable. No more than 6 of these hours may be in courses emphasizing statistical methods. Course selection must have adviser approval.

[1] It is strongly recommended that Stat. 100 be taken during the freshman or sophomore year as an early introduction to statistical ideas. Highly prepared students who are able to take Stat. 310 before the junior year should not take Stat. 100.

Departmental Distinction: Distinction will be awarded on the basis of the selection of 300-level courses in statistics and the grade-point average in required courses.

INTERDISCIPLINARY MINORS

Interdisciplinary Minor in Women's Studies

The Office of Women's Studies will offer an interdisciplinary minor, as a supplement to the regular field of concentration, for students enrolled in a concentration in the Sciences and Letters Curriculum in the College of Liberal Arts and Sciences.

The dean of the College of Liberal Arts and Sciences will verify in writing that the student has completed the program on the recommendation of the director of Women's Studies and completion of the following requirements.

REQUIREMENTS

1. Twenty-four hours in Women's Studies courses, including
   a. W.S. 111 — American Women in Change: An Introduction
   b. W.S. 112 — Introduction to Women's Studies in the Social Sciences
   c. Eighteen hours in other Women's Studies courses (see the Office of Women's Studies for a list of acceptable courses), with nine hours in advanced courses (i.e., 300-level or designated 200-level) and nine hours in courses offered by or crosslisted in Women's Studies.
2. A minimum grade-point average of 3.75 (A = 5.0) is required for completion of this program.

The eighteen hours selected by students for the women's studies minor should form a coherent program of study. This program must be approved by the Office of Women's Studies.

Specialized Curricula

CURRICULUM IN BIOCHEMISTRY

For the degree of Bachelor of Science in Biochemistry

A total of at least 120 semester hours of course work as outlined below, with a 3.0 (A = 5.0) academic grade-point average or better is required for graduation. In addition, in order to graduate, students must attain a 3.0 average in the chemistry, biochemistry, mathematics, physics, and advanced electives in life science courses specified in this curriculum. All proposals for substitutions must be approved by the faculty adviser. This curriculum is intended for those students who desire a rigorous education in chemistry, biochemistry, and the life sciences, but whose career objectives require sufficient flexibility to obtain proficiency in other areas as well.

The departmental distinction program is intended for exceptional students who intend to enter graduate school or a highly technical academic, government, or industrial research laboratory after completion of their undergraduate studies.

REQUIREMENTS[1]	HOURS
Chem. 107, 108, 109, 110, 131, 134, 336, and one year of physical chemistry (340 and 346, or 342 and 344)	26
Bioch. 352, 353, 355	12
Math. 120, 132, 242, or equivalent	11
Phycs. 101, 102 or 106, 107, 108	10-12
Advanced electives in life sciences (300-level)	6
Foreign language — see the Sciences and Letters Curriculum requirements on page 242 for ways the requirement may be satisfied	0-16
Rhetoric (4 hours), humanities (6 hours), and social sciences (6 hours)	16
Technical and/or nontechnical electives, not including any credit in satisfaction of the above requirements, to obtain a total of 120 semester hours	21-39
Minimum total	120

[1] Certain courses may be substituted for those listed. For example, Chem. 101, 102, 123 may be substituted for the Chem. 107, 108, 109, 110 sequence with the approval of an adviser.

Departmental Distinction. In addition to the above requirements, students must satisfy the following:

1. Earn at least a 4.0 (A = 5.0) grade-point average.

2. Complete 10 hours of Bioch. 292 in addition to the minimum 120 hours required for the degree.

CURRICULUM IN CHEMICAL ENGINEERING

For the degree of Bachelor of Science in Chemical Engineering

The chemical engineering curriculum is arranged in a flexible manner to permit students to use their elective hours and to substitute courses to arrange programs incorporating various specific areas of chemical engineering or interdisciplinary areas. For example, sequences can be set up in conjunction with the student's adviser to emphasize environmental engineering, engineering practice, computer science or many other options. It will be advantageous to students to plan their course sequences with an adviser as early in their academic careers as possible.

Students entering without adequate preparation in mathematics and chemistry may find it difficult to complete the chemical engineering curriculum in four years. A typical program, including all required courses and electives, is shown below. Individual students may vary the order in which the various courses are taken to suit their individual needs. However, care must be exercised in scheduling to insure that necessary course prerequisites are met.

A total of 129 hours is required for graduation, as shown below.

Students in the curriculum of chemical engineering must maintain a 3.5 general average, excluding military training, in order to be accepted by the department as juniors and seniors.

Departmental Distinction. Students are recommended for departmental distinction on the basis of grade-point average and work presented in Ch. E. 292 (Senior Thesis) or 390 (Projects).

FIRST YEAR FIRST SEMESTER	HOURS
Chem. 107[1] — General Chemistry	3
Chem. 109 — General Chemistry Lab.	2
Math. 120 — Calculus and Analytic Geometry	5
Rhet. 105 or 108 — Composition	4
Elective[2,3]	3
Total	17

SECOND SEMESTER	HOURS
Chem. 108 — General Chemistry	3
Chem. 110 — General Chemistry Lab.	2
Math. 132 — Calculus and Analytic Geometry II	3
Math. 225[4] — Introductory Matrix Theory	2
Phycs. 106 — General Physics (Mechanics)	4
Ch. E. 161 — The Chemical Engineering Profession	1
Total	15

SECOND YEAR	
Ch. E. 261 — Introduction to Chemical Engineering	3
Chem. 136 — Organic Chemistry	3
Chem. 181 — Structure and Synthesis	2
Math. 242 — Calculus of Several Variables	3
Physcs. 107 — General Physics (Heat, Electricity, and Magnetism)	4
Total	15
Ch. E. 370 — Chemical Engineering Thermodynamics	3
Chem. 336[5] — Organic Chemistry	3
C.S. 101 — Introduction to Automatic Digital Computing	3
Physcs. 108 — General Physics (Wave, Motion, Sound, Light, and Modern Physics)	4
Math. 345 — Differential Equations and Orthogonal Functions	3
Total	16

THIRD YEAR	
Ch. E. 371 — Fluid Mechanics and Heat Transfer	4
Chem. 342 — Physical Chemistry	4
Chem. 383 — Dynamics and Structure	2
Electives[2,6]	6
Total	16
Ch. E. 373 — Mass Transfer Operations	4
Chem. 344 — Physical Chemistry	4
Chem. 385 — Chemical Fundamentals	4
Electives[2,6]	4
Total	16

FOURTH YEAR	
Ch. E. 389 — Chemical Process Control and Dynamics	3
Ch. E. 374 — Chemical Engineering Laboratory	3
Ch. E. 381 — Chemical Rate Processes and Reactor Design	2
Electives[2,6]	9
Total	17
Ch. E. 390 — Chemical Engineering Projects	2
Ch. E. 377 — Synthesis and Design of Chemical Systems	3
Electives[2,6]	12
Total	17

[1] Students who do not place into Chem. 107, or who do not satisfy the mathematics prerequisite for Chem. 107, may substitute the sequence Chem. 101, 102, 123 for Chem. 107, 108, 109, 110.

[2] Sixteen hours of approved social sciences and humanities electives are required. This must include a sequence of at least 6 hours in social sciences and a sequence of at least 6 hours in humanities. A sequence is usually interpreted to mean any combination of approved coures taught by the same department. Students should consult their departmental adviser for a current list of courses that may be used to satisfy this requirement.

[3] One year of college credit in one foreign language is required. Two units of high school credit in one foreign language are equivalent to one year of college credit.

[4] Students may substitute Math. 315 for Math. 225. Students electing to do so should be certain they have the prerequisites for Math. 315.

[5] Bioch. 350 may be substituted for Chem. 336.

[6] Students must take at least 18 hours of technical electives in fields such as chemical engineering science. These must include at least 5 hours of chemical engineering electives plus at least 3 additional hours of 300-level electives (or Ch. E. 292). Students should consult their departmental advisers for a current list of courses that may be used to satisfy this requirement.

CURRICULUM IN CHEMISTRY

For the degree of Bachelor of Science in Chemistry

The curriculum in chemistry affords more thorough technical training than is required of students who make chemistry their concentration in the sciences and letters curriculum described on page 248.

For the degree of Bachelor of Science in Chemistry, completion of each of the seven categories of requirements (A through G) listed below is required for graduation. The typical program of courses required to satisfy these categories totals 128 to 134 hours. Graduation requires a grade-point average of at least a 3.0 (A = 5.0) overall and a 3.0 average in courses for requirements (A)-(D) are required for graduation. At least 120 hours is required for graduation. The Department of Chemistry will supply upon request a brochure showing recommended semester-by-semester programs for the completion of the curriculum.

Each graduate of the chemistry curriculum is certified to the American Chemical Society as having met its specifications for the professional education in chemistry.

Departmental Distinction. Students qualify for graduation with distinction by exhibiting superior performance in both course work and in senior thesis research.

REQUIREMENTS	HOURS
A. *Core chemistry:* Chem. 107, 108, 109, 110,[1] 136, 181, 315, 336, 342, 344, 383, 385	35[2]
B. *Basic mathematics:* Math. 120, 132, and 242; *or* 135 and 245	11[2]
C. *Basic physics:* Phycs. 106, 107, and 108	12[2]
D. *Additional technical requirements:* At least 24 hours to include the following:	24
1. Required chemistry/biochemistry — at least 10 hours of 300-level chemistry/biochemistry, including 4 hours of lab.	
2. Required mathematics — Math. 340 or 388; *or* one of the following combinations: 225 with either 343 or 345 *or* 315 with either 343 or 345.	
3. Strongly recommended: computer science, at least 3 hours.	
4. Strongly recommended: research — Chem. or Bioch. 292. This will reduce the amount of laboratory work required in the 10 hours of 300-level chemistry/biochemistry from 4 to 2 hours.	
5. Others as needed to complete the 24 hour minimum chosen from Chem. 199 (3 hours maximum); Biol. 151; Math. 249 or higher; 200- or 300-level courses in chemistry, chemical engineering, life sciences, and/or physics. Certain other technical electives, including engineering courses, may be included with the approval of the chair of the advising committee.	
E. *Nontechnical requirements*	16-18[2]
1. Foreign language — Two high school units or 2 semesters of college work in a single language.	
2. Rhet. 105 or 108 *or* Sp. Com. 111 *and* 112.	
3. Humanities, at least 6 hours.	
4. Social science, at least 6 hours.	
F. *Free electives:* At least 32 of these hours *must not* include credit in satisfaction of categories A through E *nor* be in preparation for categories A through C. For example, Chem. 100 and Math. 112, 114, or 116 may not be included in the first 32 hours. No first-year foreign language courses count toward this category unless it is a different language from the one used for the foreign language requirement.	32
G. Total hours, at least	120

[1] Chem. 101, 102, and 123 may be substituted for Chem. 107, 108, 109, and 110.

[2] Hours given are those normally needed to meet the specified requirements.

Cooperative Education Program in Chemistry

See Chemistry, under Sciences and Letters Concentrations, on page 248.

CURRICULUM IN GEOLOGY

For the degree of Bachelor of Science in Geology

The curriculum in geology is recommended for students who plan to enter graduate study in geology and become professional geologists. It offers more training in geology and basic science than is required of students who make geology their field of concentration in the sciences and letters curriculum in liberal arts and sciences. Requirements for the field of concentration in geology are described on page 256.

After the completion of 60 semester hours of college or university credit, a student must have and maintain thereafter a grade-point average of at least 3.5 (A = 5.0) in all subjects, excluding military training, and a grade-point average of at least 3.5 in science and mathematics courses required in the curriculum. These requirements apply to all the academic work done by a student, including any transfer credit from other institutions. Students with transfer credit must also maintain an average of at least 3.5 in all subjects and in sciences and mathematics taken at this campus.

A total of 126 semester hours of credit is required for graduation. The Department of Geology will supply upon request a *Guide for Geology Undergraduates* giving more information about the curriculum.

REQUIREMENTS	HOURS
Geol. 107[1], 108[1], 311, 317[2], 320, 321, 332, and 335	36
At least 8 hours from Geol. 301, 309, 336, 338, 350, and 360	8
Math. 120, 132, 242, 225	13
Chem. 101, 102; or 107, 108, 109, 110	8 or 10
Phycs. 106, 107 (108 recommended in addition); or 101, 102	8 or 10
Pl. Bio. 100 and Biol. 104; or Biol. 110 and 111. Substitutions require approval of adviser	8 or 10
At least one course in a cognate subject such as mathematics, chemistry, physics (including Phycs. 108), life sciences, engineering, computer science, and statistics. Approval of adviser required. If the cognate course is in mathematics, chemistry, physics, or life sciences, it must be beyond the level of the required courses enumerated above	3-4
Rhet. 105 or 108 (4 hours); approved sequences in humanities (6 hours) and social science (6 hours)	16
Foreign language — See the sciences and letters curriculum foreign language requirements for ways in which the requirement may be satisfied. German, Russian, or French is recommended	0-16
Electives, not including any credit in satisfaction of the above requirements and not including any courses taken preparatory to the science or mathematics requirement described above. Recommended areas include geology, mathematics, chemistry, physics, life science, engineering, computer science, statistics	3-29
Total	126

[1] Students planning to follow the curriculum in geology should take Geol. 107 and 108. Students who decide to follow the curriculum in geology after first taking Geol. 101 should enroll in Geol. 108; students who decide to follow the curriculum in geology after first taking Geol. 102 should enroll in Geol. 107. The combination of Geol. 101 and 102 will be accepted as a substitute for the sequence Geol. 107 and 108, but students should be aware that these courses are not intended for science majors. Geol. 142 and 143 cannot be used as a substitute for Geol. 107 and 108, and credit in these courses does not count in the total hours of credit required in the curriculum.

[2] Geol. 317 is a summer field course taught off campus.

Departmental Distinction. Students who maintain a grade-point average of at least 4.5 in all geology courses and 4.0 in all other science and mathematics courses, and who complete an acceptable honors thesis including at least 4 hours credit in Geol. 293, are recommended for graduation with distinction.

CURRICULUM IN PHYSICS

For the degree of Bachelor of Science in Physics

The curriculum in physics is recommended for students who plan to enter graduate study in physics or who wish to enter government or industrial laboratory research positions upon attaining the bachelor's degree (see also the Engineering Physics, Sciences and Letters Concentration in Physics, and Teaching of Physics curricula).

A minimum of 126 hours of credit is required for graduation. To be permitted to register in advanced physics or mathematics courses in this curriculum, a student must have a grade-point average of at least 3.5 (A = 5.0) in all subjects excluding military science and a grade-point average of at least 3.5 in all courses completed in physics and mathematics.

Entering freshmen normally take mathematics, chemistry, a foreign language, and either rhetoric or an elective in the first semester and begin physics in the second semester. Students with advanced placement in mathematics should start physics in the first semester. Suggested four-year schedules are available in the physics undergraduate records office.

REQUIREMENTS	HOURS
Chem. 101, 102 (Chem. 107, 108, 109, and 110 may be substituted by students who desire a more rigorous sequence.)	8
Math. 120, 132, 242, or equivalent and Math. 343, 345 (Students with insufficient background may need to take Math. 112/114 before Math. 120, but receive no credit toward the degree)	17
Phycs. 106, 107, 108, 210, 331, 332, 333, 386, 387, and one course chosen from Phycs. 303, 343, 361, 365, 371, 382, 389	40
Rhet. 105 or 108	4
General education [Courses chosen to meet the old (four-part) general education requirements of the Sciences and Letters Curriculum except that students offering 1 unit or more of biology for admission may substitute additional courses in humanities or social science for the biological science requirement. Students may request permission to substitute the new Sciences and Letters general education requirements.][1]	18
Foreign language (A reading knowledge of a modern foreign language: German, French, or Russian is recommended. See the Sciences and Letters Curriculum foreign language requirement on page 235 for ways in which this may be satisfied.)	16
Free electives (Students are advised to include 6-8 hours of physics and 3-6 hours of mathematics among their electives.)	23
Total	126

Departmental Distinction. Graduation with distinction is awarded to students who complete 8 additional hours of 300- or 400-level physics courses or advanced courses in closely related technical subjects, such as nuclear engineering, solid-state electronics, astrophysics, and who have attained cumulative grade-point averages as follows: Distinction, 4.2; High Distinction, 4.5; Highest Distinction, 4.8.

[1] At the date of publication, a revision of the general education requirements for this program was pending final approval. Students entering August 1987 or later should consult the adviser regarding requirements.

CURRICULUM IN SPEECH AND HEARING SCIENCE

For the degree of Bachelor of Science in Speech and Hearing Science

The curriculum in speech and hearing science is a preprofessional degree program for those individuals who plan to work as speech-language pathologists and audiologists in clinical or school settings. The curriculum is designed to prepare students to enter professional training at the graduate level in any major graduate program in speech/language pathology or audiology. Students who desire certification for work in the public schools can fulfill certification requirements by meeting entrance requirements for the Graduate College and completing the Master of Science degree. To qualify for registration in courses specified for the first semester of the senior year, the student must have a grade-point average of no less than 3.75 (A = 5.0). The degree requires at least 128 hours, excluding military training.

For those not wishing to pursue teacher certification or a clinical program, please refer to the field of concentration in Speech and Hearing Science on page 282.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, or Rhet. 105 and Sp. Com. 101, or Rhet. 108 and Sp. Com. 101	6-7
Biological science, including Anat. 234[1]	6-8
Physical science	6-8
History of the United States[2]	3
American government (state and federal constitutions)[2]	3
Foreign language (see sciences and letters requirements for ways this may be met)	0-16
Health and/or physical education	3
Humanities	6
Total	33-54

PROFESSIONAL EDUCATION

For students planning to pursue the school speech and hearing program the following are recommended.

	HOURS
Exceptional children	3-6
Classroom problems in childhood education and special education	3
Mental and educational measurement of exceptional children	3
Total	9-12

REQUIREMENTS FOR THE MAJOR	HOURS
Psychology and linguistics:	
Statistical thinking in psychology (Psych. 235)	5
Child psychology or child development (Psych. 216 or E. Psych. 236)	3
Psychology of personality or abnormal psychology (Psych. 250 or 238)	3
Psychology of learning or cognitive psychology (Psych. 248 or 224)	3
Introduction to language science (Ling. 200)	3
Total	17
Speech and hearing science:	
Voice and articulation (Sp. H.S. 105)	2
Survey of historical and professional aspects of speech pathology and audiology	2
General phonetics (Sp. H.S. 301)	3
Speech science (Sp. H.S. 375-376)	8
Development of spoken language (Sp. H.S. 383)	3
Hearing science (Sp. H.S. 378)	3
Speech pathology (Sp. H.S. 385, 388)	6
Language disorders in children (Sp. H.S. 386)	3
Appraisal in speech pathology (Sp. H.S. 389)	3
Introduction to hearing disorders and audiometry (Sp. H.S. 390)	4
Aural rehabilitation (Sp. H.S. 393)	3
Basic principles in speech pathology (Sp. H.S. 387) and practicum or practicum in audiology (Sp. H.S. 398)	3-5
Total	48-50

[1] At the date of publication, a revision was pending to delete Anat. 234 as a requirement of the curriculum, while maintaining a biological science requirement of 6-8 hours.

[2] Students not planning to fulfill teacher certification requirements for the school speech and hearing science program by completing the Master of Science degree may substitute an approved social science sequence for history of the United States and American government.

Recommended Elective Areas. These include psychology, education, physiology, linguistics, psycholinguistics, special education, and education of the deaf.

Departmental Distinction. To graduate with distinction, students must have at least a 4.25 cumulative grade-point average and a 4.5 grade-point average in speech and hearing courses and must complete one of the following:

1. Four hours of Sp. H.S. 291 (in addition to the minimum hours required for the degree) and receive faculty recommendations, or
2. a comprehensive written and/or oral examination.

Detailed statements of requirements, as well as requirements for graduation with High Distinction and Highest Distinction, are available in the department office.

Teacher Education Curricula

This section contains a description of the requirements for programs leading to the bachelor's degree in teacher education. More detailed information pertaining to specific course requirements for each area of specialization is provided by faculty advisers. It is essential that students fulfill the specific course requirements of their program in order to be eligible for the bachelor's degree in teacher education. Only through regular communication with the teacher education adviser may students be assured of the appropriateness of their semester program. Students are advised that certification requirements may be altered at any time by the State Teacher Certification Board or by the legislature. In such cases, students may be compelled to satisfy the new requirements to qualify for the University's recommendation for certification. Also see Council on Teacher Education on page 87 for information pertinent to all teacher education curricula.

General education requirements of the College of Liberal Arts and Sciences must be fulfilled by students pursuing teacher education curricula in that college. If the requirements of the

teaching major satisfy the general education requirements in an area, they will be noted in the curriculum statement.

GENERAL EDUCATION REQUIREMENTS	HOURS
Sp. Com. 111 and 112, Rhet. 105 and a speech performance elective, Rhet. 108 and a speech performance elective	6-7
Natural sciences	6-8
History of the United States (Hist. 151, 152)	3-4
American government (Pol. S. 150)	3
General psychology	3[1]
Foreign language	16
Health and/or basic physical education activities	3
Humanities	6
Total	46-50

[1] At the date of publication, a revision was being planned for general psychology, that may increase the hours from 3 to 4.

CURRICULUM PREPARATORY TO THE TEACHING OF BIOLOGY

For the degree of Bachelor of Science in the Teaching of Biology

While this curriculum is primarily designed for students preparing to teach biology, it also permits the breadth of work in the sciences required for teaching general science. A minimum of 125 hours is necessary for graduation. In addition, a student must have at least a 3.5 (A = 5.0) cumulative and U.I. grade-point average to remain in the curriculum. A student must also maintain at least a 3.0 average in all attempts at science/mathematics courses taken at the University of Illinois in order to remain in the curriculum.

Exemptions will be granted in language and mathematics, depending upon the student's high school experience. While students are no longer required to complete a teacher education minor, those desiring a minor must select it from the list on page 88. The requirements for the minor in general science are fulfilled by those completing this curriculum.

Departmental Distinction. To graduate with distinction the student must meet the following requirements: (1) have at least a 4.5 grade-point average for all work completed and (2) present a letter from his or her student teaching *evaluator* as evidence of excellent performance in student teaching capacity.

GENERAL EDUCATION REQUIREMENTS	HOURS
Forty to 42 hours in general education courses. (See above.) The requirements of the major satisfy the natural sciences requirement.	

PROFESSIONAL EDUCATION REQUIREMENTS[1]	
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4-5
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Total	25-29

REQUIREMENTS OF THE MAJOR	
Mathematics	
College algebra and trigonometry	5
Statistics	3-4
Chemistry	
General	8-10
Organic	5
Physics	10
Biology	
General	10
Advanced (200- and 300-level courses or equivalent)	
Genetics	4
Microbiology	6-8

Animal or plant physiology	5-6
Invertebrate biology	3-5
Vertebrate biology	3-5
Plant biology	3-5
Environmental biology	3-5
Total	68-82

[1] At the date of publication, professional education requirements were being revised to include a course in special education.

CURRICULUM PREPARATORY TO THE TEACHING OF CHEMISTRY

For the degree of Bachelor of Science in the Teaching of Chemistry

This curriculum is designed to prepare the student to teach physical science with a major in chemistry and a second teaching field in physics or mathematics. A minimum of 130 hours of credit is required for graduation. In addition, a student must have at least a 3.5 (A = 5.0) cumulative and U.I. grade-point average to remain in the curriculum. A student must also maintain at least a 3.0 average in all attempts at science/mathematics courses taken at the University of Illinois in order to remain in the curriculum.

Students may elect a second teaching field in either mathematics or physics. Regardless of the second teaching field, the curriculum requires the completion of the general physics sequence, including Phycs. 107, and one year of calculus. The second teaching field in mathematics shall consist of 8 hours of 300-level mathematics or 6 hours of 300-level mathematics beyond the calculus sequence and either Math. 225 or 263.[1] The second teaching field in physics shall consist of 6 hours of 300-level physics beyond the elementary courses.

Departmental Distinction. Students in this curriculum may earn Distinction, High Distinction, or Highest Distinction in the Teaching of Chemistry. Distinction is awarded on the basis of performance in student teaching and academic achievement.

GENERAL EDUCATION REQUIREMENTS

Fifty to 52 hours in general education courses. (See page 290.) Requirements of the major satisfy the natural sciences requirement. A minimum of 6 hours of humanities are required in addition to courses required for teacher certification.

PROFESSIONAL EDUCATION REQUIREMENTS[2]	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4-5
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Total	25-29

REQUIREMENTS OF THE MAJOR

The sequence of chemistry courses chosen by the student is somewhat flexible and depends upon previous educational experience as well as other factors. The following two sequences of chemistry courses are recommended. The first is the less rigorous program and might be followed by a student whose high school background is not particularly strong. The second is similar to that followed by students in the chemistry curriculum. An intermediate program involving other courses may be chosen with the consent of the departmental adviser; but, in all cases, the course program should include a course in physical chemistry and two additional courses at the 300-level, and at least 30 hours of chemistry (excluding Chem. 100).

SUGGESTED SEQUENCES

First Sequence

General chemistry	8
Elementary quantitative analysis	3

[1] Students seeking certification to teach mathematics should consult the certification officer of the Urbana Council on Teacher Education regarding current state requirements.

[2] Professional education requirements were being revised at the date of publication. Consult the adviser for information.

Basic organic chemistry and structure and synthesis (Chem. 136, 181) 5
Physical chemistry 5
Additional chemistry 11
Total 32

Second Sequence

General chemistry 10
Organic chemistry 6
Structure and synthesis (Chem. 181) 2
Inorganic chemistry (Chem. 315) 3
Physical chemistry 6
Dynamics, structure, and physical methods (Chem. 383) 2
Additional chemistry 3
Total 32

CURRICULUM PREPARATORY TO THE TEACHING OF COMPUTER SCIENCE

For the Degree of Bachelor of Science in the Teaching of Computer Science

The program offers training for teaching computer science in the schools. A minimum of 120 hours is required for graduation. It is strongly recommended that persons electing the Computer Science teacher-education major also elect an approved teaching minor in mathematics.

Departmental Distinction. Students interested in attaining departmental distinction should consult with the honors adviser for program requirements early in their junior year.

GENERAL EDUCATION REQUIREMENTS

Forty to 42 hours of general education courses. (See page 290.) The requirements of the teaching major satisfy the natural science requirement.

PROFESSIONAL EDUCATION REQUIREMENTS[1] HOURS

Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101) 2
Field Experience in Secondary Teaching (Se. Ed. 219) 1
Secondary Education in the United States (Se. Ed. 240) 2
Field Experience in Secondary Education (Se. Ed. 229) 1
Educational Psychology (Ed. Psy. 211) 3
Foundations of American Education (E.P.S. 201) 3
Techniques of Teaching in the Secondary Schools (Se. Ed. 241) 5
Educational Practice in Secondary Education (Ed. Pr. 242) 5-8
Total 22-25

[1] At the date of publication, professional education requirements were being revised to include a course in special education.

REQUIREMENTS OF THE MAJOR

Computer science (programming) 10
Introduction to Computer Programming (C.S. 121)
Machine-level Programming (C.S. 221)
Data Structures (C.S. 225)
Computer science (elective concentration areas)[1]
At least 12 semester hours chosen from among 200- and 300-level C.S. courses, with at least six semester hours at the 300-level 12
Instructional applications of computers (C.S. 317 or 316) 3-4
Goal-directed sequence in applications of computing 12
Course program planned on an individual basis to reflect interests/strengths in disciplines experiencing significant applications of computers (e.g., business, economics, science, instructional applications, administrative data processing)[2]
Calculus through Math. 242 or equivalent 10-11
Total 47-49

[1] Sample list of suitable C.S. electives: Programming — C.S. 323, 325, 326, 327, 310, 311, 318; Logic design and computer architecture — C.S. 264, 265, 331, 333, 337, 338, 339, 363, 364, 391; Numerical analysis — C.S. 257, 355, 358, 359; Theory — C.S. 273, 313, 373, 375; Hardware — C.S. 281, 282, 335, 381, 384, 385, 386, 389; General — C.S. 296, 297, 397.

[2] Such a sequence should be selected in consultation with, and must be approved by, the student's adviser. Some may require additional background or prerequisites, in which case the student is urged also to consult with the departments offering the courses in question.

CURRICULUM PREPARATORY TO THE TEACHING OF EARTH SCIENCE

For the degree of Bachelor of Science in the Teaching of Earth Science

This curriculum is designed for students preparing to teach earth science as their major area of specialization. Students in this curriculum are required to complete a teaching minor in biology, chemistry, general science, mathematics, or physical science.

Including general and professional education requirements, the courses outlined below total 132 to 151 hours; the minimum number of hours for graduation is 131. Students must complete 30 hours of advanced courses. In addition, a student must have at least a 3.5 (A = 5.0) cumulative and U.I. grade-point average to remain in the curriculum. A student must also maintain at least a 3.0 average in all attempts at science/mathematics courses taken at the University of Illinois in order to remain in the curriculum.

Departmental Distinction. See the geology concentration for requirements.

GENERAL EDUCATION REQUIREMENTS

Forty to 42 hours in general education courses. (See page 290.) Requirements for the major satisfy the natural science requirement.

PROFESSIONAL EDUCATION REQUIREMENTS[1]

Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4-5
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Total	25-29

REQUIREMENTS OF THE MAJOR	HOURS
Earth sciences	
General geology	8
Minerals and rocks (Geol. 332)	4
Paleontology or stratigraphy (Geol. 320 or 321)	4
Regional field study (Geol. 115)	2
Physical geography (meteorology and climatology)	4
General astronomy[2] (Astr. 210)	3
Electives[3]	8
Supporting sciences (may fulfill, in part, the teacher education minor)	
General chemistry	4
Mathematics[4]	2-5
Principles of biology	5
General physics (Phycs. 101)	5
Total	49-52

REQUIREMENTS OF THE TEACHER EDUCATION MINOR

Students in this curriculum are required to complete one of the following teacher education minors: biology; chemistry; general science; mathematics; or physical science. (See pages 87 to 91.)

[1] At the date of publication, professional education requirements were being revised to include a course in special education.

[2] Students who do not take a year of physics should take descriptive astronomy.

[3] A minimum of 8 additional hours in earth science is required. Recommended courses are introductory soils, oceanography, advanced physical geography, or geomorphology, and other appropriate advanced courses in agronomy, astronomy, geology, and geography.

[4] Mathematics through trigonometry is required. Calculus and analytic geometry are recommended for all students.

CURRICULUM PREPARATORY TO THE TEACHING OF ENGLISH

For the degree of Bachelor of Arts in the Teaching of English

A minimum of 128 hours is required for graduation in this curriculum. Students are required to complete one teaching minor or to fulfill requirements for an alternative to a minor. Students

who elect the Teacher Education Major in Literature must complete the Teacher Education Minor in Rhetoric or in English as a Second Language.

Departmental Distinction. Distinction will be awarded on the basis of grade-point average and satisfactory completion of honors, individual study, and honors thesis courses. See the English Education Adviser for a detailed statement of the requirements.

GENERAL EDUCATION REQUIREMENTS

Forty-three to 47 hours in general education courses. (See page 290.) The humanities requirement is fulfilled through major teaching field courses. Students in this curriculum must also complete a course in oral interpretation of literature (3 hours).

PROFESSIONAL EDUCATION REQUIREMENTS[1]	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Fundamentals of Reading Techniques (Se. Ed. 336)	3
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Total	28-31

REQUIREMENTS OF THE MAJOR

Option 1: Teacher Education Major in English	
Engl. 101 *and* one of the following: 102 or 103 or 198	6-7
Shakespeare	3
Survey of American literature	6
Survey of English literature	6
Literary criticism (Engl. 215)	3
Engl. 302 — Descriptive English Grammar	3
Engl. 301 — Introduction to the Study of the English Language, or Engl. 303 — Historical Introduction to the English Language	3
Engl. 381 — Theory and Practice of Written Composition	3
Engl. 385 — Literature for the High School	3
Advanced electives in literature	6
Total	42-43
Any approved teacher education minor (see page 88) or an approved alternative to a minor (see an adviser for details)	18-30
Option 2: Teacher Education Major in Literature	
Available only with the Teacher Education Minor in Rhetoric or in English as a Second Language.	
A minimum of 6 hours chosen from Engl. 101, 102, 103, and 198	6-7
Shakespeare	3
Survey of American literature	6
Survey of English literature	6
Literary criticism (Engl. 215)	3
Engl. 385 — Literature for the High School	3
Advanced electives in literature	9
Total	36-37

[1] At the date of publication, professional education requirements were being revised to include a course in special education.

CURRICULA PREPARATORY TO TEACHING FOREIGN LANGUAGES

The College of Liberal Arts and Sciences offers curricula for the preparation of teachers of French, German, Latin, Russian, and Spanish. Teacher education minors are also available in these languages and in Italian and Portuguese. A supplementary program, substituted for the normally required teacher education minor, is available for those students who plan to teach a foreign language in an elementary school as well as in a secondary school. See page 298.

GENERAL EDUCATION REQUIREMENTS	HOURS
Rhetoric and speech (any one of the three options listed)	6-7
Sp. Com. 111 and 112, or	
Rhet. 105 and a speech performance elective, or	
Rhet. 108 and a speech performance elective	
Biological or physical science (any approved sequence)	6-8

History of the United States (Hist. 151 or 152) 3-4
American government (Pol. S. 150) 3
General psychology (Psych. 100 or 103) . . . . . 3[1]
Health and/or physical education 3
Total 24-28

PROFESSIONAL EDUCATION REQUIREMENTS[2]

Introduction to Foreign Language Education (Human. 279) 3
Secondary Education in the United States (Se. Ed. 240) 2
Field Experience in Secondary Education (Se. Ed. 229)[3] 1-2
Foundations of American Education (E.P.S. 201) 3
Parateaching[4] 2
Psychology of Teaching and Learning (Ed. Psy. 211) 3
Educational Practice (student teaching) (Ed. Pr. 242) 8
Total 22-23

[1] At the date of publication, a revision was being planned for general psychology that may increase the hours from 3 to 4.

[2] Students are required to satisfy the requirements of House Bill 150 regarding special education. See the teacher training adviser for details.

[3] At the discretion of the faculty adviser, a student may take School and Community Experiences (Ed. Pr. 150) in lieu of (or in addition to) Se. Ed. 229.

[4] Students are required to complete Fr. 270, Ger. 270, Lat. 270, Russ. 270, or Span. 270 depending on their area of concentration.

CURRICULUM PREPARATORY TO THE TEACHING OF FRENCH

For the degree of Bachelor of Arts in the Teaching of French

A minimum of 120 hours is required for graduation.

Departmental Distinction. A student must have a minimum of 4.5 cumulative grade-point average, including a "satisfactory" in practice teaching; complete two additional advanced-level courses in French or the teaching minor; and a senior thesis (Fr. 292) and provide two letters of recommendation as evidence of exceptional teaching. Consult the teacher education adviser for details.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See pages 294 and 295.) The humanities requirement and the college foreign language requirement are fulfilled by the requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty-two to 23 hours in professional education courses. (See above.)

TEACHING AREA OF CONCENTRATION: FRENCH — HOURS

Elementary French (Fr. 101-102 or equivalent) 8
Intermediate French (Fr. 133-134 or equivalent) 8
French literature (Fr. 209-210 or equivalent) 6
Oral French (Fr. 205-206-217 or equivalent) 10
French composition (Fr. 207 or equivalent) 3
French civilization (Fr. 335-336 or equivalent) 6
Teachers' course (Fr. 280 or equivalent). This course will count as part of the professional education requirements for certification purposes. Normally taken during the student teaching semester 4
French electives selected from among advanced-level courses in French civilization, language, and/or literature 5
Total[1] 50
Note: French Study Abroad (Fr. 299) is strongly recommended.

TEACHER EDUCATION MINOR

Students in this curriculum are required to complete a teacher education minor. See page 88 for a list of approved minors. See page 298 for requirements to be fulfilled by those planning to teach French in both elementary and secondary schools.

[1] The total of 50 hours may be reduced by as much as 16 hours through prerequisite credit for work equivalent to Fr. 101-104 taken in secondary school.

CURRICULUM PREPARATORY TO THE TEACHING OF GERMAN

For the degree of Bachelor of Arts in the Teaching of German

A minimum of 120 hours of credit is required for graduation.

Departmental Distinction. Students should consult their adviser by the second semester of their junior year for information pertaining to seminar honors work and honors awards in the department.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See pages 294 and 295.) The humanities requirement and the college foreign language requirement are fulfilled by the requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty-two to 23 hours in professional education courses. (See page 295.)

TEACHING AREA OF CONCENTRATION: GERMAN	HOURS
Elementary German (Ger. 101-102 or equivalent)	8
Intermediate German (Ger. 103-104 or equivalent)	8
German conversation and writing (Ger. 211-212 or equivalent)	6
Introduction to German literature (Ger. 231-232 or equivalent)	6
Teachers' course (Ger. 280 or equivalent. This course will count as part of the professional education requirements for certification purposes.)	4
Advanced conversation, composition, and syntax (Ger. 301 or equivalent)	3
Advanced conversation (Ger. 302 or equivalent)	1
History of German civilization (Ger. 320 or equivalent)	4
Modern German Poetry (Ger. 330) or The German Novelle (Ger. 331) or German Drama (Ger. 332) or Literature and Culture of the Geman Democratic Republic (Ger. 335)	3
Structure of the German language (Ger. 365 or equivalent)	3
German elective	3
Total[1]	49

Note: German Study Abroad (Ger. 299) is strongly recommended.

TEACHER EDUCATION MINOR

Students in this curriculum are required to complete a teacher education minor. See page 88 for a list of approved minors. See page 298 for requirements to be fulfilled by those planning to teach German in both elementary and secondary schools.

[1] The total of 49 hours may be reduced by as much as 16 hours through prerequisite credit for work equivalent to Ger. 101-104 taken in secondary school.

CURRICULUM PREPARATORY TO THE TEACHING OF LATIN

For the degree of Bachelor of Arts in the Teaching of Latin

A minimum of 120 hours of credit is required for graduation.

Departmental Distinction. The requirements for Distinction in the teaching of Latin are the same as those for Distinction in the classics.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See pages 294 and 295.) The humanities requirement and the college foreign language requirement are fulfilled by requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty-two to 23 hours in professional education courses. (See page 295.)

TEACHING AREA OF CONCENTRATION: LATIN	HOURS
Elementary Latin (Lat. 101-102 or equivalent)	8
Intermediate Latin (Lat. 103-104 or equivalent)	8
Latin composition (Lat. 113-114 or equivalent)	4
Survey of Latin literature (Lat. 201-202 or equivalent)	6
Teachers' course (Lat. 280 or equivalent. This course will count as part of the professional education requirements for certification purposes. Must be taken during the student teaching semester.)	4
Readings from Latin literature (Lat. 391 or equivalent)	6
Ancient history (Hist. 181-182 or equivalent)	6
Classical archaeology (Cl. Civ. 131-132 or equivalent)	6
Total[1]	48

TEACHER EDUCATION MINOR

Students in this curriculum are required to complete a teacher education minor. See page 88 for a list of approved minors. See page 298 for requirements to be fulfilled by those planning to teach Latin in both elementary and secondary schools.

[1] The total of 48 hours may be reduced by as much as 16 hours through prerequisite credit for work equivalent to Lat. 101-104 taken in secondary school.

CURRICULUM PREPARATORY TO THE TEACHING OF RUSSIAN

For the degree of Bachelor of Arts in the Teaching of Russian

A minimum of 123 hours of credit is required for graduation.

Departmental Distinction: The requirements for graduation with distinction in the teaching of Russian are the same as for graduation with distinction in the Russian field of concentration.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See pages 294 and 295.) The humanities requirement and the college foreign language requirement are fulfilled by the requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty-two to 23 hours in professional education courses. (See page 295.)

TEACHING AREA OF CONCENTRATION: RUSSIAN	HOURS
Courses in language and literature	
Russ. 101-102 — First-Year Russian, or equivalent	8
Russ. 103-104 — Second-Year Russian, or equivalent	8
Russ. 211-212 — Russian Conversation, I and II, or Russ. 303-304 — Advanced Reading and Conversation, I and II	6
Russ. 213-214 — Russian Composition, I and II, or Russ. 313-314 — Advanced Composition and Usage, I and II	6
Russ. 215-216 — Introduction to Russian Literature, I and II	6
Russ. 308 — Russian Phonetics and Pronunciation	3
Russ. 315 — Nineteenth-Century Literature in Translation, or Russ. 115, 116, 225, or 317	3
Russ. 280 — Teachers' Course, or equivalent (This course will count as part of the professional education requirements for certification purposes. Must be taken during the student teaching semester.)	4
Total[1]	44
Courses in Russian history and civilization	
Hist. 219 — Survey of Russian History from Early Times to Present, or Hist. 320, 321, 326, 327, or 328	3
Russ. 113 — Russian Civilization through Literature or Russ. 114 — Soviet Society through Literature	3
Total	6

TEACHER EDUCATION MINOR

Students in this curriculum are required to complete a teacher education minor. See page 88 for a list of approved minors. See page 298 for requirements to be fulfilled by those planning to teach Russian in both elementary and secondary schools.

ELECTIVES

Recommended electives (at least 3 hours) include Art Hist. 111, 112; C. Lit. 340, 368; Music 130, 131; Phil. 101; Slav. 319; Hist. 313-314; courses in Russian and East European area studies (Geog. 353, Soc. 350); advanced courses in the major or minor field.

[1] The total of 44 hours may be reduced by as much as 16 hours through prerequisite credit for work equivalent to Russ. 101-104 taken in secondary school.

CURRICULUM PREPARATORY TO THE TEACHING OF SPANISH

For the degree of Bachelor of Arts in the Teaching of Spanish

A minimum of 123 hours of credit is required for graduation.

Departmental Distinction. To be eligible for departmental distinction, a student must have a minimum grade-point average of 4.0, display exceptional teaching ability, and complete an approved project or series of projects. Consult the Spanish Teacher Training Adviser for details.

GENERAL EDUCATION REQUIREMENTS

Twenty-four to 28 hours in general education courses. (See pages 294 and 295.) The humanities requirement and the college foreign language requirement are fulfilled by the requirements of the major.

PROFESSIONAL EDUCATION REQUIREMENTS

Twenty-two to 23 hours in professional education courses. (See page 295.)

TEACHING AREA OF CONCENTRATION: SPANISH	HOURS
Elementary Spanish (Span. 101-102 or equivalent)	8
Intermediate Spanish (Span. 103-104 or equivalent)	8
Spanish language: Spanish phonetics and syntax (Span. 209 or equivalent)	3
Spoken Spanish (Span. 211 and 215 or equivalent)	4-6
Spanish composition (Span. 217 or equivalent)	3
Spanish civilization: Spanish and Spanish American (Span. 232 and 233 or equivalent)	4
Introduction to the study of Hispanic literature (Span. 200 or equivalent)	2
Spanish literature (Span. 240 or 241 or equivalent. Medieval–Golden Age or eighteenth century to present)	3
Spanish American literature (Span. 242 or equivalent)	3
Teachers' course (Span. 280 or equivalent. This course is normally taken during the student teaching semester.)	4
Syntax (Span. 352 or equivalent)	3
Spanish electives: one or two 200- or 300-level courses	3-6
Total[1]	48-53

[1] The total number of hours may be reduced by as many as 16 hours through prerequisite credit for work equivalent to Span. 101-104 taken in secondary school.

FOREIGN STUDY

It is strongly recommended that future teachers of Spanish engage in one or more semesters of study in a Spanish-speaking country. A number of the curricular requirements listed above may be met through the Year Abroad Program or other approved programs; see pages 239 to 241.

Specialty for Teaching a Foreign Language in Both High School and Elementary School

Students who wish to prepare for teaching a foreign language in elementary schools should consult the certifiction specialist at the Council on Teacher Education, 130 Education Building, for information concerning current state requirements and procedures.

CURRICULUM PREPARATORY TO THE TEACHING OF MATHEMATICS

For the degree of Bachelor of Science in the Teaching of Mathematics

This curriculum offers training for teachers of high school mathematics. A minimum of 120 hours of credit is required for graduation. Students may not receive more than 5 semester hours with grades of C or below in the calculus sequence. Students must maintain a 3.5 U.I. and cumulative average and an average of 3.5 in mathematics courses beyond calculus.

Departmental Distinction. A subcommittee of the area committee shall be appointed each year to select candidates for graduation with distinction on the basis of the following criteria: (1) Overall grade-point average (minimum): 4.25 for Distinction, 4.50 for High Distinction, 4.75 for Highest Distinction. (2) Grade-point average in mathematics and education courses (minimum): 4.4 for Distinction, 4.6 for High Distinction, 4.8 for Highest Distinction. (3) Recommendation of the student's teaching supervisor and other evidence of the student's teaching work for candidates for High Distinction and Highest Distinction.

GENERAL EDUCATION REQUIREMENTS

The complete general education requirements for the program are listed below.

Sp. Com. 111 and 112, or Rhet. 105 (or 108) and an approved speech performance course	6-7
History of the United States (Hist. 151, 152, 261, or 262)	3-4
American government (Pol. S. 150)	3
Three courses approved for the Sciences and Letters requirements in Area I, in addition to history of the United States and American government. These must include a course in literature and the arts and a course in non-Western cultures and traditions. (See the Sciences and Letters general education requirements on pages 243 and 244.)	9
One course approved for the biological science area for Sciences and Letters	3
One course approved for the physical science area for Sciences and Letters	3
General psychology	3[1]

Foreign language (See Sciences and Letters requirement for ways this may be met.)	0-16
Health and/or basic physical education activities	3
Total	33-51

[1] At the date of publication, a revision was being considered in general psychology which might increase the hours from 3 to 4.

PROFESSIONAL EDUCATION REQUIREMENTS[1]	HOURS
Se. Ed. 101 — Introduction to the Teaching of Secondary School Subjects	2
Se. Ed. 219 — Field Experience in Secondary Teaching	1
Se. Ed. 240 — Secondary Education in the United States	2
Se. Ed. 229 — Field Experience in Secondary Education	1
Ed. Psy. 211 — Educational Psychology	3
E.P.S. 201 — Foundations of American Education	3
Se. Ed. 239 or fifteen clock hours of mathematics tutoring in an approved mathematics tutorial program	0-2
Se. Ed. 241 — Techniques of Teaching in the Secondary Schools	5
Ed. Pr. 242 — Educational Practice in Secondary Education	5-8
Total	22-27

[1] At the date of publication, professional education requirements were being revised to include a course in special education.

REQUIREMENTS OF THE MAJOR	HOURS
Calculus and analytic geometry	10-11
Topics on geometry (Math. 302)	3
Abstract algebra (Math. 317)	3
Linear algebra (Math. 225, 315, or 318)	2-3
Real analysis (Math. 344 or 347)	3
Probability-statistics (Stat. 210, 310, or 351)	3-4
Computer science (C.S. 101, 105, or 121)	3-4
Students must also select at least three additional courses from the field lists below, including courses from at least two different lists. (With the approval of the Undergraduate Advising Office, topics courses such as Math. 351 may be counted in the field list most appropriate to the content of a particular offering of that course.)	9
Geometry-topology: Math. 303, 323, 332	
Analysis: Math. 247, 306, 341 or 345, 346 or 348, 384	
Algebra: Math. 305, 313, 315, 319, 353, 383	
Probability-statistics: Stat. 311, 320, 330	
Total	36-40

COMBINED SCIENCES AND LETTERS — EDUCATION PROGRAM FOR MATHEMATICS TEACHERS

For the degree of Bachelor of Arts or Bachelor of Science

This program leads to the degree of Bachelor of Arts, or Bachelor of Science, with a major in mathematics. A student must maintain a 4.0 (A = 5.0) grade-point average in mathematics and a 3.75 all-University grade-point average to remain in the program. All requirements for the sciences and letters curriculum must be met. (See page 241.) A total of 120 hours is required for graduation.

GENERAL EDUCATION REQUIREMENTS

Students must satisfy both the Sciences and Letters general education requirements and the general education requirements for teacher education programs. In addition, students must complete at least 6 hours of physics using the calculus (Phycs. 106-107 or equivalent). The complete list of general education requirements for the program are listed below.

	HOURS
Sp. Com. 111 and 112, or Rhet. 105 (or 108) and a speech performance elective	6-7
History of the United States (Hist. 151, 152, 260, 261, or 262)	3-4
American government (Pol. S. 150)	3
Three courses for Sciences and Letters requirements in Area I, including a course in literature and the arts and a course in non-Western cultures and traditions. (These are in addition to U.S. history and American government.)	9
One course approved for the biological science area for Sciences and Letters requirements	3
Phycs. 106-107	8
General psychology	3
Foreign language	0-16
Health and/or basic physical education activities	3
Total	38-56

PROFESSIONAL EDUCATION REQUIREMENTS[1]	HOURS
Se. Ed. 101 — Introduction to the Teaching of Secondary School Subjects	2
Se. Ed. 219 — Field Experience in Secondary Teaching	1
Se. Ed. 240 — Secondary Education in the United States	2
Se. Ed. 229 — Field Experience in Secondary Education	1
Ed. Psy. 211 — Educational Psychology	3
E.P.S. 201 — Foundations of American Education	3
Tutorial Experience — fifteen clock hours of mathematics tutoring in an approved mathematics tutorial program. (Five clock hours may be waived if the student takes Se. Ed. 209 — Preliminary Field Experience in Secondary Teaching.)	
Se. Ed. 241 — Techniques of Teaching in the Secondary Schools	5
Ed. Pr. 242 — Educational Practice in Secondary Education	5-8
Total	22-25

REQUIREMENTS OF THE MAJOR	HOURS
Calculus and analytic geometry	10-11
Topics in geometry (Math. 302)	3
Intermediate analysis (Math. 247)	3
Abstract algebra (Math. 317)	3
Linear algebra (Math. 315 or 318)	3
Real analysis (Math. 344 or 347)	3
Probability-statistics (Stat. 310 or 351)	3-4
Computer science (C.S. 101, 105, or 121)	3-4
Two additional courses chosen from: Math. 303, 305, 306, 313, 314, 319, 323, 332, 341, 345, 346, 348, 351, 353, 364, 369, 383, 384	6
Total	37-40

REQUIREMENTS OF THE MINOR

Each candidate must complete either (a) a teaching minor in accountancy, biology, chemistry, computer science, economics, foreign language, physics, physical science, or social science or (b) 10 hours of course work in a field cognate to mathematics and consisting of courses that make use of mathematical principles and techniques. Approval of the department Undergraduate Advising Office is required for the cognate course sequence.

[1] At the date of publication, professional education requirements were being revised to include a special education course.

CURRICULUM PREPARATORY TO THE TEACHING OF PHYSICS

For the degree of Bachelor of Science in the Teaching of Physics

This program is for students preparing to teach high school physics. A minimum of 132 hours of credit is required for graduation. In addition, a student must have at least a 3.5 (A = 5.0) cumulative and U.I. grade-point average to remain in the curriculum. A student must also maintain at least a 3.0 average in all attempts at science/mathematics courses taken at the University of Illinois in order to remain in the curriculum.

Departmental Distinction. Distinction is determined by a combination of grade-point average and achievement in student teaching. The student's practice teaching experience will be evaluated by the departmental honors adviser and the teaching supervisor. Distinction requires a 4.2 grade-point average; High Distinction, 4.4; Highest Distinction, 4.6. Students desiring distinction should consult with the department honors adviser during the junior year.

GENERAL EDUCATION REQUIREMENTS

Forty to 42 hours of general education courses. (See page 290.) The requirement in natural sciences is fulfilled by teaching major requirements.

PROFESSIONAL EDUCATION REQUIREMENTS[1]	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	4-5
Educational Practice in Secondary Education (Ed. Pr. 242)	5-8
Total	25-29

REQUIREMENTS OF THE MAJOR	HOURS
General chemistry	8
Mathematics	
Calculus and analytic geometry, advanced calculus	14
Differential equations and orthogonal functions (Math. 345)	3
Total	17
Physics	
General physics (Phycs. 106, 107, 108)	12
Atomic physics and quantum theory (Phycs. 383)	3
Intermediate electricity (300-level) (Phycs. 331)	5
Physics of light (300-level) (Phycs. 371)	4
Electives in physics (200- and 300-level, excluding Phycs. 319)	8
Total	32
Total	57

[1] At the date of publication, professional education requirements were being revised to include a course in special education.

CURRICULUM PREPARATORY TO THE TEACHING OF SOCIAL STUDIES

For the degree of Bachelor of Arts in Teaching Social Studies

A minimum of 120 hours is required for graduation. This curriculum prepares its graduates for teaching social studies in grades 6-12. The choice of options will be determined in consultation with the faculty adviser for this curriculum.

Departmental Distinction. To be eligible for graduation with distinction, students must have a grade-point average of 4.25 in the major field which is history.

In consultation with the major adviser during the spring semester of the junior year, students are encouraged to make the necessary arrangements for graduation with distinction.

GENERAL EDUCATION REQUIREMENTS

Forty-six to 50 hours in general education courses. (See page 290.)

PROFESSIONAL EDUCATION REQUIREMENTS[1]	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Techniques of Teaching in the Secondary Schools (Se. Ed. 241)	3
Educational Practice in Secondary Education (Ed. Pr. 242)	8
Total	27

REQUIREMENTS OF THE MAJOR AND MINOR	HOURS
Option A	
History courses	20
Survey of non-American history	6-8
United States history (advanced hours)	6
European or non-Western history (advanced hours)	6
One course chosen from each of four fields (anthropology, economics, geography, political science, sociology) with a concentration of 8-9 hours in two	22-24
Teacher education minor in an approved teaching field outside the social studies area	20-24
Total in option A	62-68
Option B	
History courses	20
Survey of non-American history	6-8
United States history (advanced hours)	6
European or non-Western history (advanced hours)	6
Concentration in two social studies fields other than minor field	16-18
Minor within the social studies area (anthropology, economics, geography, political science, sociology)	20
Total in option B	56-58

[1] At the date of publication, professional education requirements were being revised to include a course in special education.

CURRICULUM PREPARATORY TO THE TEACHING OF SPEECH

For the degree of Bachelor of Arts in the Teaching of Speech

This program is designed to give the teacher a foundation in the areas of public speaking, communication, and theatre arts. A minimum of 132 hours of credit is required for graduation.

Departmental Distinction. The requirements for distinction in the curriculum preparatory to the teaching of speech are the same as those for speech communication.

GENERAL EDUCATION REQUIREMENTS

Forty-nine to 53 hours in general education courses. (See page 290.) The humanities requirement is fulfilled by 9 hours (required) of electives in literature.

PROFESSIONAL EDUCATION REQUIREMENTS[1]	HOURS
Preliminary Field Experience in Secondary Teaching (Se. Ed. 209)	0
Introduction to the Teaching of Secondary School Subjects (Se. Ed. 101)	2
Field Experience in Secondary Teaching (Se. Ed. 219)	2
Secondary Education in the United States (Se. Ed. 240)	2
Field Experience in Secondary Education (Se. Ed. 229)	2
Microteaching: Practice in Teaching Techniques (Se. Ed. 239)	2
Educational Psychology (Ed. Psy. 211)	3
Foundations of American Education (E.P.S. 201)	3
Techniques of Teaching (Se. Ed. 241 or Se. Ed./Sp. Com. 247 (3 hours))	3
Educational Practice in Secondary Education (Ed. Pr. 242)	8
Total	27

REQUIREMENTS FOR THE MAJOR	HOURS
Principles of effective speaking or advanced oral communication	3
Voice and articulation or speech and hearing problems in the classroom	2-3
Group discussion and conference leadership	3
Public discussion and debate	2
Oral interpretation	3
Elements of stagecraft	4
Fundamentals of acting	3
Directing I	3
Principles of radio and television broadcasting	3
Electives chosen from one of the following areas:	9-12
(Nine hours must be at the 200 level or above.)	
I. Oral interpretation	
II. Public discourse	
III. Interpersonal communication	
IV. General (12 hours required)	
Total	35-39

TEACHER EDUCATION MINOR

Students in this curriculum are required to complete a teacher education minor. See page 88 for a list of the possible minors.

[1] At the date of publication, professional education requirements were being revised to include a course in special education.

Teacher Education Minors

English and Speech

TEACHER EDUCATION MINOR IN ENGLISH

REQUIRED COURSES	HOURS
Rhet. 105 or 108	4
Two courses in American literature (Engl. 255 and 256 are strongly recommended)	6
Two courses in English literature (Engl. 209 and 210 are strongly recommended)	6
Engl. 381 — Theory and Practice of Written Composition, or Rhet. 133 — Principles of Composition, or Rhet. 143 — Expository Writing (Engl. 381 is strongly recommended)	3
Engl. 302 — Descriptive English Grammar	3
Electives in English or American literature (Engl. 215 is strongly recommended)	6
Total	28

TEACHER EDUCATION MINOR IN ENGLISH AS A SECOND LANGUAGE

REQUIRED COURSES	HOURS
Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective, or Sp. Com. 111 and 112	6-7
E.S.L./Ling. 388 — English Phonology and Morphology for ESL Teachers	3
E.S.L./Ling. 389 — Theoretical Foundations of TESL Methodology	3
Ling. 200 — Elements of Linguistics	3
Ling. 225 — Elements of Psycholinguistics	3
E.S.L. 302 — Descriptive English Grammar	3
Two courses from the following Groups A, B, C. The two courses selected must be from different groups	6-7
Group A: Culture and Language — Ling./E.S.L. 350 — Introduction to Sociolinguistics, or E.S.L. 356 — The Impact of Cultural Differences in TESL, or Ling. 370 — Language, Culture, and Society	
Group B: Supervised Practicum Experience — E.S.L. 301 — Topics in Applied TESL/TEFL Theory, Section for Practicum I	
Group C: Language Pedagogy — E.S.L. 360 — Principles of Language Testing, or E.S.L. 371 — Teaching Composition in the E.S.L. Classroom, or E.S.L. 386 — Reading in a Second Language	
Total	27-29

TEACHER EDUCATION MINOR IN RHETORIC

Available only with a teacher education major in literature.

REQUIRED COURSES	HOURS
Rhet. 105 and a speech performance elective, or Rhet. 108 and a speech performance elective, or Sp. Com. 111 and 112	6-7
Rhet. 133 — Principles of Composition, or Rhet. 143 — Intermediate Expository Writing	3
Rhet. 144 — Narrative Writing	3
Engl. 381 — Theory and Practice of Written Composition	3
Engl. 302 — Descriptive English Grammar	3
Electives in rhetoric or related fields	6-7
Total	24-26

TEACHER EDUCATION MINOR IN SPEECH

REQUIRED COURSES	HOURS
Principles of effective speaking	3
Advanced oral communication or persuasion	3
Oral interpretation	3
Fundamentals of acting	3
Dramatics for teachers	3
Speech for teachers, or the teaching of speech	3
Voice and articulation	2
Discussion and group leadership or interpersonal communication	3
Rhetoric (includes Rhet. 105 or 108)	6
Total	29

Foreign Languages

TEACHER EDUCATION MINOR IN FRENCH

REQUIRED COURSES	HOURS
Elementary French (Fr. 101-102 or equivalent)	8
Intermediate French (Fr. 133-134 or equivalent)	8
Oral French (Fr. 205-206 or equivalent)	6
Total	22

TEACHER EDUCATION MINOR IN GERMAN

REQUIRED COURSES	HOURS
Elementary German (Ger. 101-102)	8
Intermediate German (Ger. 103-104)	8
Conversation and writing (Ger. 211-212)	6
Total	22

TEACHER EDUCATION MINOR IN ITALIAN

REQUIRED COURSES	HOURS
Elementary Italian (Ital. 101-102 or equivalent)	8
Intermediate Italian (Ital. 103-104 or equivalent)	8
Composition and Conversation I and II (Ital. 211-212)	6
Total	22

TEACHER EDUCATION MINOR IN LATIN

REQUIRED COURSES	HOURS
Elementary Latin (Lat. 101-102, or equivalent)	8
Intermediate Latin (Lat. 103-104, or equivalent)	8
Elementary Latin composition (Lat. 113-114, or equivalent)	4
Survey of Latin literature (Lat. 201-202, or equivalent)	6
Teachers' course (Lat. 280)	4
Total	30[1]

[1] The total of 30 hours may be reduced as much as 16 hours through prerequisite credit for secondary school work equivalent to Lat. 101-104. One semester of readings in Latin literature will be required in such cases.

TEACHER EDUCATION MINOR IN PORTUGUESE

REQUIRED COURSES	HOURS
Elementary Portuguese I and II (Port. 101-102)	8
Intermediate Portuguese (Port. 103-104)	8
Intermediate composition and conversation (Port. 211)	3
Brazilian literature (Port. 301) or	
Readings in Portuguese (Port. 290)	3
Total	22

TEACHER EDUCATION MINOR IN RUSSIAN

REQUIRED COURSES	HOURS
Russ. 101-102 — First-Year Russian, or equivalent	8
Russ. 103 — Second-Year Russian, or equivalent	4
Russ. 104 — Grammar Review and Conversation	4
Russ. 211-212 — Russian Conversation, I and II	6
Total	22

TEACHER EDUCATION MINOR IN SPANISH

REQUIRED COURSES	HOURS
Elementary Spanish (Span. 101-102 or equivalent)	8
Intermediate Spanish (Span. 103-104 or equivalent)	8
Spanish Language (Span. 209 or equivalent)	3
Oral Spanish (Span. 211 or equivalent)	2
Spanish Composition (Span. 217 or equivalent)	3
Total	24

Mathematics and Computer Science

TEACHER EDUCATION MINOR IN COMPUTER SCIENCE

REQUIRED COURSES	HOURS
C.S. 121 — Introduction to Computer Programming	4
C.S. 221 — Machine-level Programming	3
Two of the following four courses:	6
C.S. 257 — Introduction to Numerical Analysis	
C.S. 264 — Introduction to the Structure and Logic of Computers	
C.S. 273 — Introduction to the Theory of Computation	
C.S. 281 — Introduction to Computer Circuitry	
Two 300-level computer science courses	6
Total	19[1]

[1] Students who will not achieve certification in mathematics or business will need 32 hours of computer science to be certified in this area.

TEACHER EDUCATION MINOR IN MATHEMATICS[1]

For students in a teacher education curriculum other than mathematics who wish to be qualified to teach mathematics in high school or middle schools.

REQUIREMENTS TO TEACH MATHEMATICS IN GRADES 9-12.	HOURS
Math. 120 and 132, or equivalent	8
At least 3 hours of methods courses in the teaching of mathematics (See Ed. 101 — section M for 2 hours and Se. Ed. 219 for 1 hour.)	3
At least 14 hours of work chosen as follows:	14
Math. 242 (*applied mathematics*)	
Math. 302 (*geometry*)	
At least 8 hours, including courses from at least two areas other than applied mathematics and geometry, to be chosen from the following lists:	
Computer science (C.S. 101 or 105, or equivalent)	
Linear algebra (Math. 125, 225, 315, 383)	
Modern algebra (Math. 313, 317, 353)	
Geometry (Math. 303)	
Applied mathematics (Math. 247, 341, 344, 345, 346)	
Probability-statistics (Stat. 210/Math. 263, Stat, 310/Math. 363)	
History of mathematics (Math. 306)	

REQUIREMENTS TO TEACH MATHEMATICS IN GRADES 6-8.	
El. Ed. 330	3
At least 15 hours of work from at least four of the following areas:	15
Math. 200, 201, or 202, 203	
Calculus (Math. 120, 132)	
Modern algebra (Math. 313, 317, 353)	
Geometry (Math. 302)	
Computer science (C.S. 101 or 105, or equivalent)	
Probability-statistics (Stat. 100/Math. 161, Stat. 210/Math. 263, Stat. 310/Math. 363)	
History of mathematics (Math. 306)	

[1] This statement reflects a revision which was pending final approval at the date of publication.

Science

TEACHER EDUCATION MINOR IN BIOLOGY

Twelve hours of electives are to be chosen from the various departments in the School of Life Sciences, in consultation with the adviser. An attempt should be made to obtain background in each of the general areas in the School of Life Sciences to give the students minoring in the teaching of biological sciences as much breadth as possible as prospective biology teachers.

REQUIRED COURSES	HOURS
Principles of biology (Biol. 110-111)	10
Genetics (Biol. 210)	4
Electives to be taken in the life science areas chosen in consultation with the biology education adviser	12
Total	26

TEACHER EDUCATION MINOR IN CHEMISTRY[1]

REQUIRED COURSES	HOURS
General chemistry	8
Elementary quantitative analysis	5
Elementary organic chemistry, including laboratory	5
Physical science electives (preferably physics)	8-10
Total	26-28

[1] The requirements for this minor were being revised at the date of publication.

TEACHER EDUCATION MINOR IN EARTH SCIENCE

REQUIRED COURSES	HOURS
Descriptive astronomy (Astr. 101, 102)	8
Physical geography	4
General geology (Geol. 107, 108)	8
Regional field study (Geol. 115)	2

Minerals and rocks (Geol. 332)	4
Total	26

TEACHER EDUCATION MINOR IN GENERAL SCIENCE

Additional hours in other sciences such as astronomy, geology, and physical geography are recommended for the student completing the minor in general science.

REQUIRED COURSES	HOURS
General physics (Phycs. 101, 102)	10
Principles of biology (Biol. 110, 111)	10
General chemistry	8
Total	28

TEACHER EDUCATION MINOR IN PHYSICAL SCIENCE

Twenty-four semester hours in the field with approximately one-half of the work in chemistry and the other half in physics. Additional work in other physical sciences, such as astronomy, geology, and physical geography, is recommended. This minor is intended primarily for students preparing to teach mathematics.

TEACHER EDUCATION MINOR IN PHYSICS

REQUIRED COURSES	HOURS
General physics and advanced physics	18
General chemistry	8
Total	26

Social Studies

TEACHER EDUCATION MINOR IN GEOGRAPHY

For a minor in geography, a student must complete at least 12 semester hours in survey courses selected from physical and human (cultural) geography plus an additional 12 semester hours elected from economic, regional, social, historical, environmental or conservation geography, or cartography. Any student wishing to pursue this minor should consult with the certification officer.

TEACHER EDUCATION MINOR IN HISTORY

For a minor in history, a student must complete at least 8 semester hours in United States history, 8 semester hours in world history, and 9 semester hours of 200- or 300-level history electives that should include attention to ethnic history and the history of women. The minimum total required for a minor is 24 hours.

TEACHER EDUCATION MINOR IN PSYCHOLOGY

A minimum of 22 hours in psychology with at least one course (a minimum of 3 hours) in each of the following areas: introductory psychology; statistics; personality — developmental, experimental, and social. It is strongly recommended that the additional hours include courses dealing with methods of research in psychology.

TEACHER EDUCATION MINOR IN SOCIAL STUDIES

For a minor in social studies, a student must complete at least 8 hours of work in each of two of the following subjects: anthropology, economics, human geography, political science, sociology. The minimum total required for a minor is 24 hours from these five areas.

Interdisciplinary

TEACHER EDUCATION MINOR IN CINEMA STUDIES

Upon electing this minor, students should consult with the academic adviser of the Unit for Cinema Studies for assignment to a faculty adviser. The sequence of courses counted toward completion of this minor must be approved in writing by the cinema studies adviser prior to the completion of the student's sixth semester. See Cinema Studies in the *Timetable* each semester for a list of courses currently being offered. Contact the Unit for Cinema Studies for a more detailed description of these courses. Cinema Studies is an interdisciplinary unit within the School of Humanities.

REQUIRED COURSES	HOURS
Engl. 104 — Introduction to Film	3
Art Ci. 180, 280, or 380 — Cinematography or equivalent[1]	3
Human. 261 — Survey of World Cinema, I	3
Human. 262 — Survey of World Cinema, II or Human. 361 — Film Theory and Criticism	3
Human. 297 — Junior Seminar and Tutorial or equivalent[1]	3
Other cinema studies courses	9[2]
Total	24

[1] The cinema-studies option adviser may approve a specific substitution for the cinematography and the junior seminar/tutorial requirements if the student is unable to secure these courses.

[2] This total must include courses in at least two different departments of the School of Humanities. It must also include at least 3 hours at the 300-level. One humanities cinema studies course (besides Human. 297) offered directly by the school may be counted toward this requirement.

TEACHER EDUCATION MINOR IN WOMEN'S STUDIES

Students are required to take the two introductory women's studies courses (W.S. 111 and 112). Eighteen hours of women's studies electives are to be chosen in consultation with the Office of Women's Studies and the student's major adviser. The sequence of women's studies courses elected should form a coordinated program of study. No more than 6 of the elective hours may be at the 100-level. At least four of the six elective courses should be taught either from a social science or a humanities perspective. Courses from the social science perspective must be chosen from courses in departments in the social sciences or the Departments of Economics or Psychology, and courses from the humanities perspective must be chosen from courses in departments in the School of Humanities or in departments in the College of Fine and Applied Arts.

COURSE REQUIREMENTS	HOURS
W.S. 111 — American Women in Change: An Introduction to Women's Studies in the Humanities	3
W.S. 112 — Introduction to Women's Studies in the Social Sciences	3
Ed. Psych. 241 — Sex Role Socialization	3
Electives to be chosen from the current approved list of women's studies electives	15
Total	24

Joint Degree Programs

BACCALAUREATE–MASTER OF ACCOUNTING SCIENCE DEGREE PROGRAM

The B.A./B.S.–M.A.S. program is designed to enable qualified students to earn both a bachelor's degree in the College of Liberal Arts and Sciences and the Master of Accounting Science degree in five years rather than the normal six years. The program integrates an undergraduate education with a professional education without diluting the quality or purpose of either. Program objectives will be met primarily by students completing courses during their fourth year that are simultaneously electives in their baccalaureate programs and requirements for the M.A.S. degree. Students who are interested in the joint degree should contact a program adviser (in 270 Lincoln Hall) early in their initial year.

The program is open to all students in the College of Liberal Arts and Sciences who meet the requirements below. In most cases, participants in the B.A./B.S.–M.A.S. program will complete their undergraduate concentrations by the end of their third year. As a consequence,

some students will have to plan their course work carefully to meet their undergraduate educational objectives and to participate in the program; this will be particularly true for undergraduates whose concentrations require extensive sequential course work.

Since the B.A./B.S.–M.A.S. program is based on careful course selection and program planning, interested students should consult with a B.A./B.S.–M.A.S. adviser during their first year. The program's objectives and requirements will be explained so that the students, in consultation with their baccalaureate degree program adviser, may plan their course work to meet both objectives.

Students who wish to participate in the B.A./B.S.–M.A.S. program must make formal application by March 31 in the second semester of their junior year. To be eligible for consideration, they must have at least a 4.25 cumulative grade-point average with at least 75 hours of course work completed and at least a score of 550 on the Graduate Management Admissions Test (GMAT).

BACCALAUREATE–MASTER OF BUSINESS ADMINISTRATION DEGREE PROGRAM

The B.A./B.S.–M.B.A. program is designed to enable qualified students to earn both a bachelor's degree in the College of Liberal Arts and Sciences and the Master of Business Administration degree in five years rather than the normal six years. The program integrates an undergraduate education in such diverse fields as English, political science, or economics with a professional business education without diluting the quality or purpose of either. Program objectives will be met primarily by students' completing courses during their fourth year that are simultaneously electives in their baccalaureate programs and requirements for the M.B.A. degree. Students who are interested in the joint degree should contact the program adviser (270 Lincoln Hall) early in their initial year.

The program is open to all students in the College of Liberal Arts and Sciences who meet the requirements below. In most cases, participants in the B.A./B.S.–M.B.A. program will complete their undergraduate concentrations by the end of their third year. As a consequence, some students will have to plan their course work carefully to meet their undergraduate educational objectives and to participate in the program; this will be particularly true for undergraduates whose concentrations require extensive sequential course work.

Since the B.A./B.S.–M.B.A. program is based on careful course selection and program planning, interested students should consult with a B.A./B.S.–M.B.A. program adviser during their first year. The program's objectives and requirements will be explained so that the students, in consultation with their baccalaureate degree program advisers, may plan their course work to meet both objectives. Students who wish to participate in the B.A./B.S.–M.B.A. program must make formal application by March 31 in the second semester of their junior year. To be eligible for consideration, they must have at least a 4.25 cumulative grade-point average with at least 75 hours of course work completed and at least a score of 570 on the Graduate Management Admissions Test (GMAT).

Preprofessional Health Programs

PREPROFESSIONAL TRAINING

Because of the very large number of students interested in the health and allied health professions and the limited number of spaces in professional schools, the competition for admission to professional programs is very severe. In reality, those admitted to professional programs have academic records well above the stated minimum requirements. It is, therefore, extremely important for students at the preprofessional level to plan for alternate academic and career goals. Students interested in the health and allied health professions are directed into degree programs in the college so that they can make progress toward meeting requirements for a bachelor's degree at the same time that they complete course requirements for admission to their desired health or allied health profession. By doing this, students who are not successful in gaining admission to a professional program may complete a degree program without prolonging study beyond eight semesters.

ACADEMIC ADVISING

Since students who are interested in the health professions are expected to enter degree programs of their choice, their academic advising is provided by the departmental offices of the curricula or fields of concentration that they have selected. Generally, students interested in dentistry, medical dietetics, medical laboratory sciences, or physical therapy are advised to elect the general biology option as their field of concentration in life sciences. Students interested in medical record administration, occupational therapy, pharmacy, or professional nursing are advised to elect the general curriculum.

PROFESSIONAL SCHOOL ADVISING

Advising for professional schools and career advising for the following areas may be obtained from the Health Professions Information Office: dentistry, allopathic medicine, osteopathic medicine, optometry, and podiatry. The Health Professions Information Office is located at 710 South Goodwin Avenue, Urbana, IL 61801. The office serves as a resource center for information concerning careers in the health professions, coordinates visits of deans and admissions officers to this campus to interview prospective applicants and to acquaint students with the unique educational features of their institutions, and provides personal and individual career counseling and guidance for students who are interested in the health professions listed above.

The office provides students who are planning to apply to professional schools in the health professions listed above with standard faculty evaluation forms. Students may request letters of evaluation from faculty at any time during their college career. The office will maintain the letters in a confidential file and will duplicate and forward them, unedited, to the professional schools designated by the student.

Advising about professional schools and career information for medical laboratory sciences, nutrition and medical dietetics, and physical therapy, is available at the School of Life Sciences, 393 Morrill Hall, 505 South Goodwin Avenue, Urbana, IL 61801. Career advising for medical record administration, nursing, occupational therapy, and pharmacy is available at the General Curriculum Advising Office, 912 South Fifth Street, Champaign, IL 61820.

TRANSFER CREDIT FROM PROFESSIONAL SCHOOLS

If a student has satisfied both college and concentration residency requirements, it is possible to transfer basic medical science credit satisfactorily completed at a fully accredited medical, dental, or veterinary medical school for courses acceptable to the field of concentration and to apply that credit to the requirements for the baccalaureate degree from the College of Liberal Arts and Sciences. The amount of transfer credit cannot exceed 30 semester hours, and duplication of courses completed on this campus will not be permitted. Credit will be counted only upon completion of one year's professional study.

Students planning to complete their baccalaureate-degree requirements by attendance at a medical, dental, or veterinary medical school must obtain an evaluation of credit *before* attending that school. Because it is quite possible that less than the maximum amount of credit may be acceptable as transfer credit, it is essential that students consult their admissions and records officer in the college office as early as possible.

If there is any question whether or not a course meets the criteria for acceptability or the amount of credit to be granted, the student will be responsible for providing the necessary information upon which the head of the appropriate department (or his or her designate) on this campus will make a recommendation to the college regarding the acceptance of credit. Final determination of the credit will be made by the dean of the College of Liberal Arts and Sciences or his or her designate.

The prior agreement regarding transfer credit from professional schools must be included in the student's field of concentration contract form.

PREPROFESSIONAL REQUIREMENTS FOR DENTISTRY

Preprofessional training for dentistry is basically a three-year program, although 60 to 70 percent of the students who are admitted to dental schools have a bachelor's degree. It is

advisable, therefore, to complete the requirements for admission to dental school in conjunction with fulfilling requirements for a bachelor's degree.

It is essential for students to know the specific requirements for admission to each of the dental schools to which they apply. These requirements are listed in the *Admission Requirements of the American Dental Schools,* published by the American Association of Dental Schools, 1625 Massachusetts Avenue, N.W., Washington, DC 20036.

All U.S. and Canadian dental schools require that: (1) All applicants take the Dental Admissions Test (DAT) as recommended and approved by the American Dental Association. For information concerning the test write to the Division of Educational Measurements, American Dental Association, 211 East Chicago Avenue, Chicago, IL 60611. The application forms can also be obtained from the Health Professions Information Office, 710 South Goodwin Avenue, Urbana, IL 61801. (2) Letters of evaluation from all applicants. (3) An interview may be requested by the Committee on Admissions. The American Association of Dental Schools sponsors a centralized application service (AADSAS). Application request cards can be obtained through the Health Professions Information Office, 710 South Goodwin Avenue, or by writing AADSAS, P.O. Box 1003, Iowa City, IA 52240.

Courses should include:

Rhetoric: Two semesters. Recommended: Sp. Com. 111 and 112, or Rhet. 105 or 108, and 133.
Mathematics (prerequisites for chemistry and physics): Math. 112 and 114.
Chem. 101, 102; 131, 134, and 122 or 336 or Bioch. 350.
Biol. 110 and 111.
Phycs. 101-102 or 106, 107, and 108.
General education sequences: Humanities and social sciences.
Electives: Foreign language, Math. 120, social sciences, and humanities beyond the minimum requirements strongly recommended.

PREPROFESSIONAL REQUIREMENTS FOR MEDICINE

Although a few students are admitted to medical school after three years of preprofessional training, over 95 percent of the students have a bachelor's degree. Therefore, students should pursue study in a degree program. There is no prescribed curriculum for premedical students. The fields of concentration in life sciences, chemistry or biochemistry, and the curriculum in chemical engineering are especially suitable since requirements in these curricula overlap to some extent with medical school requirements. Any concentration in psychology or in the humanities or fine arts is acceptable to medical school. Since students who are planning to apply to medical schools will need a number of science courses (even if they are concentrating in a nonscience area), it is important that students elect mathematics their first year since calculus is a prerequisite for some courses in chemistry, physics, and the life sciences.

All American and Canadian medical schools require that: (1) All applicants take the Medical College Admission Test (MCAT) as recommended and approved by the Association of American Medical Colleges. The MCAT must be taken no later than October of the year prior to enrollment. For information concerning the test, write to Medical Colleges Test, American Testing Program, Box 168, Iowa City, IA 52240. The application forms can also be obtained from the Health Professions Information Office, University of Illinois at Urbana-Champaign, 710 South Goodwin Avenue, Urbana, IL 61801. (2) Letters of evaluation from all applicants. (3) An interview may be requested by the Committee on Admissions.

The American Association of Medical Schools sponsors a centralized application service, the American Medical College Application Service (AMCAS). Applications are available *only* from AMCAS, Suite 301, 1776 Massachusetts Avenue, N.W., Washington, DC 20036. Application request cards can be obtained from the Health Professions Information Office, 710 South Goodwin Avenue, Urbana, IL 61801.

Students who anticipate a career in medicine are advised to obtain additional information from those medical schools in which they are interested. Specific admission requirements for individual medical schools are listed in *Medical School Admission Requirements,* published by the Association of American Medical Colleges, One Dupont Circle, N.W., Washington, DC 20036.

PREPROFESSIONAL REQUIREMENTS FOR NURSING

The University offers a degree program leading to the Bachelor of Science in Nursing for students coming directly from high school or for registered nurses who meet a specific set of requirements. The program is made up of two phases: a preprofessional year in the College of Liberal Arts and Sciences at Urbana-Champaign or at any other accredited college or university, and the professional phase administered by the College of Nursing, at the Health Sciences Center of the University of Illinois at Chicago. (A baccalaureate degree completion program for registered nurses is also offered on the Urbana campus by the College of Nursing.)

Graduates of hospital schools of nursing or associate degree nursing programs are admitted with advanced standing, the exact amount of credit to be granted depending on the nature of the work done, validating examinations, and the quality of performance in sequential courses.

Admission to the professional phase is on recommendation of the Admissions Committee of the College of Nursing after completion of the following requirements with an overall grade-point average of 3.5 (A = 5.0) and a minimum grade of C in required courses:

Rhetoric: Rhet. 105 or 108.
Chemistry: Chem. 101 and 102.
Biological science: Biol. 104.
Humanities: 6 hours.
Social sciences: Psych. 100 and Soc. 100.
Academic electives: 3 hours to complete a total of 30 hours.

For additional information about the programs in nursing, write to the Office of Admissions and Records, 1737 West Polk Street, Chicago, IL 60612.

Information regarding the baccalaureate degree completion program for registered nurses may be obtained from the College of Nursing at 905 South Goodwin Avenue, Urbana, IL 61801.

PREPROFESSIONAL REQUIREMENTS FOR PHARMACY

Preprofessional training for pharmacy is a two-year program. Minimum requirements for admission to the Doctor of Pharmacy degree program at the Health Sciences Center are 61 semester hours, exclusive of physical education and military science, with at least a 3.5 (A = 5.0) grade-point average in the following:

English composition: Sp. Com. 111 and 112, *or* Rhet. 105 or 108 *and* Rhet. 133 or 143.
Mathematics: Math. 120.[1]
Chemistry: Chem. 101[2] and 102; 131 and 134; and 336.
Biological sciences: Biol. 104 and Pl. Bio. 100; Anat. 234; and Mcbio. 100. Mcbio. 101 is strongly recommended.
Electives: 20 hours. These hours must include at least one course in each of the following five categories: Social/behavioral sciences; economics, finance, or accounting; fine arts, including art, music, or theatre; physical science, including physics, geology, or astronomy; and humanities, including history, philosophy, foreign language.

[1] If student places into Math. 112, he or she should request approval of the chemistry department to take Chem. 101 concurrently with Math. 112.

[2] If student must delay enrolling in Chem. 101 until second semester of freshman year, it will be necessary to attend summer school to complete general chemistry in one year.

Note: Applicants must have completed all coursework in English composition, mathematics, and science before entering the College of Pharmacy, University of Illinois at Chicago, Health Sciences Center.

PREPROFESSIONAL REQUIREMENTS FOR VETERINARY MEDICINE

Students wishing to complete the preprofessional requirements for veterinary medicine in the College of Liberal Arts and Sciences may do so within a variety of curricula. However, courses required are equivalent to those recommended for students majoring in the life sciences field of concentration. See page 263.

Because of the very severe competition for admission, students should plan to complete a bachelor's degree program. Recently there were approximately three to four qualified applicants for each space available in the entering class in veterinary medicine. The mean grade-point average of admitted students was slightly above 4.50 (A = 5.0).

Specific information about veterinary medicine, including admission requirements, may be found beginning on page 317.

PREPROFESSIONAL REQUIREMENTS FOR MEDICAL LABORATORY SCIENCES

Minimum requirements for admission are 60 semester hours, exclusive of physical education and military science, with at least a 3.0 (A = 5.0) grade-point average in the following:

Rhetoric: One semester.
Mathematics (to fulfill prerequisite for chemistry): Math. 112 or equivalent.
Chem. 101, 102, 122, and 131.
Biological sciences: Biol. 110 and 111; *and* Mcbio. 100 and 101, or Mcbio. 200 and 201.
General education sequences: Two courses in humanities and two courses in social science.
Electives: To complete a total of 60 semester hours. Recommended: Genetics, medical terminology, cell biology, anatomy, electronics, statistics, education, or additional rhetoric.

Note: If a student must delay enrolling in Chemistry 101 until the spring semester, it will be necessary to attend summer school to complete chemistry and biology in two years.

PREPROFESSIONAL REQUIREMENTS FOR MEDICAL RECORD ADMINISTRATION

Minimum requirements for admission are 60 semester hours, exclusive of physical education and military science, with at least a 3.5 (A = 5.0) grade-point average in the following:

Rhetoric: Two semesters. Recommended: Sp. Com. 111 and 112, or Rhet. 105 or 108 and Rhet. 133.
Biological sciences: Two courses — Physl. 103 and Anat. 234 required.
General education sequences: Humanities, social science (psychology or sociology recommended), and general biology.
Mathematics/statistics: 112 or equivalent, and one of Math. 161/Stat. 100, Econ. 171, Psych. 235, or Soc. 185.
Electives: To complete a total of 60 semester hours. Recommended: Psych. 201 and 245, Soc. 185, Biol. 104, Phil. 102, and B.&T.W. 251.

PREPROFESSIONAL REQUIREMENTS FOR NUTRITION AND MEDICAL DIETETICS

Minimum requirements for admission are 60 semester hours, exclusive of physical education and military science, with at least a 3.5 (A = 5.0) grade-point average in the following:

Rhetoric or verbal communication: Two semesters. Recommended: Sp. Com. 111 and 112, or Rhet. 105 and Sp. Com. 101.
Biological sciences: One course in biology and one course in microbiology with laboratory. Recommended: Biol. 104 and Mcbio. 100 and 101.
Physical sciences: Chemistry through organic with laboratory. Recommended: Chem. 101, 102, 131, and 134.
Mathematics: Math. 112 or equivalent, and one course in statistics (Math. 161 recommended).
Humanities: An approved general education sequence.
Psych. 100 or 103.
Two courses in anthropology or two courses in sociology. Recommended: Anth. 103 and 210 or Soc. 100 and 321.
Economics: One course. Recommended: Econ. 101.
Electives: To complete a total of 60 semester hours.

Note: If a student must delay enrolling in Chem. 101 until the spring semester, it will be necessary to attend summer school to complete chemistry and biology requirements in two years.

PREPROFESSIONAL REQUIREMENTS FOR OCCUPATIONAL THERAPY

Preprofessional training for occupational therapy generally is a two-year program. Minimum requirements for admission are 60 semester hours with at least a 3.5 (A = 5.0) grade-point average including the following courses:

Behavioral sciences: 12 hours. Psychology: General and abnormal (Psych. 100 and Psych. 238); human development (introduction to human development and observation and analysis of behavior); Note: Child psychology and an additional psychology course may be substituted.
Social sciences: 9 hours. Soc. 100 and any combination of sociology, anthropology, economics, and political science.
Physl. 103 — Introduction to Human Physiology (prerequisite: high school chemistry is strongly recommended) and Anat. 234 — Human Anatomy and Physiology.
Communication skills: Principles of Composition and Voice and Articulation, or Verbal Communication

(Rhet. 105/108 *and* Sp. Com. 101, *or* Sp. Com. 111-112).
Creative media: Ceramics or pottery, woodworking.
Humanities: Two courses (see Literature and the Arts, Historical and Philosophical Perspectives — excluding American History — list in *LAS Student Handbook*).
Physical education: Two courses will be accepted toward the combination of required total hours and recommended.
Physical sciences or biological sciences: Two courses, excluding physiology/anatomy.
Statistics: Soc. 185 or Psych. 235.
Electives: To complete the required 60 semester hours.

PREPROFESSIONAL REQUIREMENTS FOR PHYSICAL THERAPY

Preprofessional training for physical therapy is a two-year program. Minimum requirements for admission are 60 semester hours, exclusive of military service, with at least a 3.5 (A = 5.0) grade-point average in the following:

Rhetoric: One semester
Mathematics: 112 and 114
Chemistry: 101 and 102
Biology: 110 and 111
Psychology: 100 or 103 or 105, and 216 and 238
Physics: 101 and 102
Physical education: Two courses
Humanities: Approved general education sequence
Electives: To complete a total of 60 semester hours. Recommended: Anthropology, human anatomy and physiology, health and safety studies, additional psychology and sociology.

Note: A current or up-to-date Red Cross First Aid and CPR card also will be required prior to enrollment.

Note: If a student must delay enrolling in Chem. 101 until the second semester of his or her freshman year, it will be necessary to attend summer school to complete chemistry and biology requirements in two years.

Academic Organization

SCHOOL OF CHEMICAL SCIENCES: Departments of Biochemistry, Chemical Engineering, and Chemistry.

SCHOOL OF HUMANITIES: Departments of the Classics; English; French; Germanic Languages and Literatures; History; Linguistics; Philosophy; Slavic Languages and Literatures; Spanish, Italian, and Portuguese; and Speech Communication. Programs in Comparative Literature and Religious Studies; Unit for Cinema Studies; Division of English as a Second Language; Language Learning Laboratory.

SCHOOL OF LIFE SCIENCES: Departments of Anatomical Sciences; Ecology, Ethology, and Evolution; Entomology; Genetics and Development; Microbiology; Physiology and Biophysics; and Plant Biology. Museum of Natural History.

OTHER UNITS: Departments of Anthropology, Astronomy, Geography, Geology, Mathematics, Political Science, Psychology, Sociology, and Speech and Hearing Science. Center for African Studies; Afro-American Academic Program; Center for East Asian and Pacific Studies; Center for Latin American and Caribbean Studies; Russian and East European Center; General Curriculum; Individual Plans of Study; Office of Women's Studies; World Heritage Museum.

Graduate School of Library and Information Science

410 David Kinley Hall, 1407 West Gregory Drive, Urbana, IL 61801
Telephone: (217) 333-3280

GRADUATE STUDY.....314

TEACHER EDUCATION MINOR IN LIBRARY SCIENCE.....314

The Graduate School of Library and Information Science offers courses leading to the Master of Science, the Certificate of Advanced Study, and the Doctor of Philosophy degrees. The school also offers some courses which may be taken by undergraduates as electives, or as a minor in the College of Liberal Arts and Sciences or in the College of Education. These same courses also may be taken as electives by students in other colleges.

A master's degree is the entry-level credential for professional work in libraries and information centers. Generally, the most desirable preparation for such graduate study is an undergraduate major in a subject other than library and information science together with a related and appropriate minor. History, literature, the social sciences, the natural sciences, and foreign languages are all valuable. At the present time, such subjects as chemistry, physics, mathematics, education, engineering, law, agriculture, and computer science are particularly needed and, when combined with professional training, can lead to a variety of interesting positions.

Persons considering library and information science as a minor should meet with the dean of the Graduate School of Library and Information Science to discuss the type of preprofessional education best suited to their particular needs and interests.

GRADUATE STUDY

For information about the graduate programs in library and information science, see the announcements of the Graduate School of Library and Information Science and the Graduate College, or call or write to the dean of the Graduate School of Library and Information Science.

TEACHER EDUCATION MINOR IN LIBRARY SCIENCE

The Graduate School of Library and Information Science offers courses for advanced undergraduates in the College of Liberal Arts and Sciences who wish to qualify both as classroom teachers and as librarians in small elementary, junior high, and senior high schools, or as assistant librarians in large schools. Full professional training leading to a master's degree in library and information science is required of those who wish to prepare for positions in larger schools, for supervisory positions in the school library field, and for positions as media specialists.

Students interested in this program should contact the dean of the Graduate School of Library and Information Science.

School of Social Work

1207 West Oregon Street, Urbana, IL 61801

ADMISSION REQUIREMENTS.....315

The School of Social Work offers a program of undergraduate and graduate study leading to the professional degrees of Bachelor of Social Work, Master of Social Work, and Ph.D.

The undergraduate courses in social work are for those individuals who wish to pursue a course of academic study and supervised field work that prepares them for beginning professional social work practice and graduate study in social work.

The Bachelor of Social Work (B.S.W.) program is accredited by the Council on Social Work Education. The focus of the curriculum is on teaching the basic knowledge, principles, and techniques needed by the graduate to assume the beginning professional direct-service delivery role in a variety of social service settings, including child welfare, corrections, mental health, family services, health care, rehabilitation services, public assistance, and programs for the aged. Attention is also directed to the development of interpersonal competence as a significant part of the program of study. Finally, the professional study is based on the general education components of the University and study in relevant social, behavioral, and biological sciences.

Beginning freshmen interested in a career in social work are advised to enroll in the general curriculum of the College of Liberal Arts and Sciences and to meet with a social work adviser as early as possible to plan a program of study.

ADMISSION REQUIREMENTS

Students are admitted after completing 45 semester hours of undergraduate college-level work. Admission is based on the following: (1) a grade-point average of at least 3.75 (A = 5.0), (2) satisfactory progress in the required general education course work, (3) demonstrated volunteer and/or work experience in human service areas, and (4) a written statement of intent and interest. Applicants with less than a 3.75 grade-point average or unfinished general education courses will be considered if they demonstrate strong career motivation and aptitude. However, opportunities for admission are reduced if all criteria are not met.

Students admitted as B.S.W. candidates are advised in the selection of a course of study that will enable them to develop an appropriate knowledge and skill base for social work practice. The B.S.W. curriculum emphasizes the acquisition of knowledge and skills leading to improved communication, both oral and written; sharpened analytic ability; enhanced problem-solving ability; and increased social consciousness.

SAMPLE UNDERGRADUATE PROGRAM

For the degree of Bachelor of Social Work

FIRST YEAR FIRST SEMESTER	HOURS
Rhet. 105 or 108 — Composition	4
Soc. 100 — Introduction to Sociology	3
Psych. 100 — Introduction to Psychology	3
Biological science (human biology)*	3
Literature and the arts*	3
Total	16

SECOND SEMESTER	HOURS
Pol. Sci. 150 — American Government Organization and Powers	3
H.D.F.E. 105 — Introduction to Human Development	3
Historical and philosophical perspectives*	3
Non-western cultures and traditions*	3
Elective	3
Total	15

SECOND YEAR

Soc. W. 100 — Contemporary Social Work . . .3
Econ. 101 — Introduction to Economics 4
Physical science elective* 3
Electives 6
Total 16

Psych. 238 — Abnormal Psychology 3
Elementary statistics* 3
Science and society elective* 3
Electives 5
Total 14

THIRD YEAR

Soc. W. 300 — Methods of Social Work Intervention I 3
Soc. W. 310 — Social Welfare Policies and Services I 3
Interdepartmental course concentration* 3
Electives 5
Total 14

Soc. W. 301 — Methods of Social Work Intervention II 3
Soc. W. 311 — Social Welfare Policy and Services II 3
Social work field of practice* 3
Interdepartmental course concentration* 3
Elective 3
Total 15

FOURTH YEAR

Soc. W. 327 — Research Methods in Social Work Practice 3
Soc. W. 351 — Human Behavior and Social Environment I 3
Interdepartmental course concentration* 3
Electives 6
Total 15

Soc. W. 298 — Practice Seminar 3
Soc. W. 299 — Field Instruction 6
Soc. W. 299 — Field Instruction 6
Total 15

* Selected from approved list of courses.

College of Veterinary Medicine

2271G Veterinary Medicine Basic Science Building, 2001 South Lincoln Avenue, Urbana, IL 61801

PREPROFESSIONAL COURSE REQUIREMENTS **317**

ADMISSION **318**

COSTS **320**

HONORS PROGRAMS **320**

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CURRICULUM **320**

The College of Veterinary Medicine educates men and women in medical disciplines involving the animal kingdom. The four-year professional curriculum leads to the degree of Doctor of Veterinary Medicine. The program gives students a broad foundation in the biological and physical sciences and practical knowledge in the application of these principles to the prevention, control, and eradication of animal diseases. The college also strives to emphasize the profession's obligation to society.

Veterinary medicine offers an unlimited variety of intellectual and scientific challenges. Most veterinarians engage in specialized animal practice. Many others are involved in public health activities which include controlling and eradicating diseases, assuring the wholesomeness of food products, developing and producing biological products and drugs, and enforcing health regulations for transported animals. Still other veterinarians engage in teaching and research.

Students receive the benefit of an instructional program constantly enriched by the lastest advances in veterinary medicine. The first two years are devoted largely to basic veterinary medical subjects; the final two years consist chiefly of instruction in applied clinical subjects such as medicine, surgery, and obstetrics. Most of fourth-year instruction is in clinic and laboratory areas, enabling students to apply knowledge gained in classroom work to the diagnosis, prevention, treatment, suppression, and eradication of disease.

The college is affiliated with the Agricultural Experiment Station and the Cooperative Extension Service and is a component of the Graduate College. It cooperates with the state Departments of Agriculture, Public Health, Conservation, and the State Natural History Survey on various projects.

PREPROFESSIONAL COURSE REQUIREMENTS

The preprofessional program must include a minimum 60 semester hours (90 quarter hours) of college-level courses, as specified below, and must be completed at accredited colleges or universities. The courses in biology, chemistry, and physics are to be equivalent in content to those recommended for students majoring in biological sciences. It is strongly recommended that the science courses be taken on a graded basis.

Biological sciences: Two semesters (8 semester hours) or the equivalent of college-level course work in biological sciences with appropriate laboratory experience. These courses should emphasize the cellular, molecular, and genetic aspects, as well as the structure and function, of living organisms.

Chemistry: Four semesters (16 semester hours) or the equivalent of college-level course work

in chemistry, including courses in organic chemistry and biochemistry. Laboratory work and familiarity with quantitative techniques are important aspects of this experience. To be acceptable, the biochemistry course must be 3 semester hours or 4 quarter hours and should have organic chemistry as a prerequisite.

Physics: Two semesters (8 semester hours) or the equivalent of college-level course work in physics with appropriate laboratory experience. These courses should include heat, light, sound, electricity, and mechanics.

Genetics: One semester (3 semester hours) or the equivalent of college-level course work in genetics.

Animal science: One semester (3 semester hours) or the equivalent of college-level course work in surveying the livestock and poultry industries with emphasis on the breeding, selection, feeding, and management of food animals. (For successful applicants who take their preprofessional course work at an institution where an acceptable animal science course is not available, this requirement may be satisfied at UIUC during the summer session prior to enrollment in the College of Veterinary Medicine.)

English: One semester (3 semester hours) or the equivalent of college-level course work in English composition.

Humanities and social sciences: Four semesters (12 semester hours) or the equivalent of college-level course work in the humanities and/or social sciences.

Electives: Optional courses (7 semester hours). Preprofessional course requirements can be completed at most collegiate institutions. Students wishing to complete preprofessional requirements on the Urbana-Champaign campus of the University of Illinois may do so within a variety of curricula in either the College of Agriculture or the College of Liberal Arts and Sciences. Information regarding admission requirements to preprofessional programs offered on the Urbana-Champaign campus may be obtained by writing the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 10 Administration Building, 506 South Wright Street, Urbana, IL 61801.

The Committee on Admission of the College of Veterinary Medicine will consider an application only if the applicant presents a minimum cumulative grade-point average of 3.5 (A = 5.0) at the end of the fall term preceding the desired date of admission. The applicant must also complete the 60 semester hours of preprofessional course requirements by the date of desired admission.

ADMISSION

Data

Completion of the minimum academic requirements does not guarantee admission to the professional curriculum. Because of limited facilities and the amount of support available to the College of Veterinary Medicine, the number of students who enter the professional curriculum each year must be restricted. Recently, there have been approximately three qualified applicants for each place available in the entering class. The mean grade-point average of the applicants selected has been slightly above the 4.50 (A = 5.0) level, and the mean number of preprofessional hours completed has been near the 120-semester-hour level. This level of competition is expected to continue. Most applicants who are admitted have a considerable amount of experience with and exposure to animals and the veterinary profession, as well as records of strong participation in community and extracurricular activities.

Application Procedure

Application materials for the professional curriculum are available from the Office of Admissions and Records, University of Illinois at Urbana-Champaign, 10 Administration Building, 506 South Wright Street, Urbana, IL 61801, between September 1 and December 15. No application materials will be mailed after December 1. (New students enter the College of Veterinary Medicine in the fall only.)

All items submitted by the applicant (application form, fee, self-evaluation form, courses to be completed form) must be received in the Office of Admissions and Records by 5:00 p.m., December 15. Letters of evaluation are also due December 15. All other required supporting

credentials such as transcripts and Veterinary Aptitude Test (VAT) results must be received by February 1 for the application to be complete and the applicant considered for admission. Final grades for the fall term prior to enrollment must be on the transcript submitted for the February 1 credentials deadline or consideration will be terminated. The application must be accompanied by a nonrefundable application fee of $25, which is used to partially cover the cost of processing the application for presentation to the Committee on Admissions.

Requests for additional information should be directed to the Office of Admissions and Records. You may write to the above address or visit the office at 177 Administration Building from 8:30 a.m. to 12 noon and 1:00 to 4:30 p.m., Monday through Friday. Appointments are recommended. You may also call at these times by dialing (217) 333-0302.

I. SELECTION CRITERIA (SUBJECT TO CHANGE)

Because of the size and quality of the applicant pool, only a few highly qualified applicants have been admitted with the minimum of 60 hours in recent years. Therefore, students who have completed the minimum requirements but have not been admitted to the College of Veterinary Medicine are urged to structure their programs to qualify for a bachelor's degree in their area of study within the normal four-year period.

In addition to submitting official transcripts of all collegiate work attempted, applicants must also provide official scores of their performance on the Veterinary Aptitude Test. These scores will be sent to the Office of Admissions and Records from the private organization administering the examination (The Psychological Corporation, 555 Academic Court, San Antonio, Texas 78204). The examination is offered at various nationwide locations during the late fall and winter of each year. Information on arranging to take the examination is available in the application packet for the College of Veterinary Medicine.

Three letters of evaluation are required from persons who can evaluate the applicant's experience and ability relating to professional and scientific study. Two letters should be from college instructors or academic advisers. A letter from a practicing veterinarian is highly desirable. Students who are currently enrolled in graduate school must accompany their applications with a letter from their graduate adviser delineating current status in graduate school and the likely completion date of the graduate program.

Applicants are expected to demonstrate potential for contribution to and advancement of the profession. An interview may be required by the committee as a means of supplementing information obtained from the materials submitted.

Preference is given to residents of Illinois. A limited number of nonresidents with superior qualifications may be admitted. Opportunities for admission of foreign students are virtually nonexistent.

The professional program of the College of Veterinary Medicine is accessible to qualified persons, and such persons will not be denied admission on the basis of handicap. A qualified person is one who meets the academic and technical standards requisite to admission and participation in the educational program of the college. During their course of study, students treat animal patients while under the supervision of veterinary practitioners. Such clinical duties may not be waived since they are an essential part of the educational program. The technical standards of the college (as well as the veterinary medical profession) require that the safety of both animal patients and veterinary students be protected. The student shall not cause a health or safety hazard to the animal patients or to other persons.

II. POINT RANKING SYSTEM (SUBJECT TO CHANGE)

Applicants are currently ranked on the basis of a 100-point scale, with the allocation of points distributed among the following criteria:

Objective Measures of Academic Performance

Seventy points — from grade-point averages determined from official college transcripts and from Veterinary Aptitude Test (VAT) results. The cumulative grade-point, science grade-point, and total number of graded science hours completed, in addition to the score earned on the VAT, will most likely be used to allocate these points. (If the VAT test is taken more than once, the highest of the two most recent test scores will be used. The VAT test score must be for a test taken during the current or preceding year's application period.) A limit on total hours may be imposed in the graded science hours category.

Subjective Measures — Personal

Thirty points — allocated by College Admission Advisory Committee on the basis of information submitted with the application and letters of recommendation indicating the applicant's knowledge of, motivation toward, and experience with the veterinary profession; evidence of leadership, initiative, and responsibility; animal contact and experience; extracurricular factors influencing personal growth.

Bonus Points

Up to eight bonus points may be given to applicants for ancillary factors that have influenced academic performance: consistently heavy course loads; the quality of courses or course sequences; and significant improvement following a "poor start." Bonus points are recalculated each year for applicants who reapply.

COSTS

The estimated tuition and fees for a student enrolled in a full or partial academic program are shown on pages 50 and 52. Each entering first-year veterinary student must provide a microscope for his or her own classroom use before the semester begins. Minimum specifications for these microscopes are established by the college and will be provided to the student upon notification of admission. This represents a recoverable investment of $750 or more.

HONORS PROGRAMS

For information about University Honors and the Dean's List, see pages 79 and 80.

Honors at Graduation

Honors are awarded to superior students in the professional curriculum. For graduation with Honors, a student must have a grade-point average of not less than 4.35 (A = 5.0) in all courses completed in the College of Veterinary Medicine; for graduation with High Honors, a grade-point average of not less than 4.75 is required.

GRADUATION REQUIREMENTS

Students who have fulfilled their general education course requirements, passed all courses in the first two years of the veterinary medicine curriculum, and who have a cumulative grade-point average of 3.0 (A = 5.0) or better in these courses, are eligible for the degree of Bachelor of Science in Veterinary Medicine.

Students who have passed all courses prescribed in the four-year veterinary medicine curriculum and who have a cumulative grade-point average of 3.0 (A = 5.0) or better in these courses are eligible for the degree of Doctor of Veterinary Medicine (D.V.M.)

CURRICULUM (Subject to Change)

For the degree of Doctor of Veterinary Medicine

FIRST YEAR[1]

FIRST SEMESTER	CREDIT HOURS	CLOCK HOURS
An. S. 325 — Principles of Animal Nutrition	3	3
V.B. 300 — Gross Anatomy	4	8
V.B. 301 — Histology — Embryology I	4	8
V.P. 330 — Veterinary Medical History, Ethics, and Orientation	1	1
V.P. 331 — Veterinary Bacteriology and Mycology	4	7
V.B. 310 — Neurobiology	3	5
Total	19	32

SECOND SEMESTER	CREDIT HOURS	CLOCK HOURS
V.B. 302 — Gross Anatomy	5	8
V.B. 305 — Histology — Embryology II	3	5
V.B. 315 — Physiology I	4	7
V.P. 332[5] — Veterinary Immunology	2	7
V.P. 337[5] — Veterinary Virology	2	7
V.C.M. 378 — Veterinary Clinical Orientation	1	1
Electives[4]	1-2	Variable
Total	17-18	Approx. 35

SECOND YEAR

FIRST SEMESTER

V.B. 316 — Physiology II	4	4
V.B. 317 — Physiology/ Pharmacology Laboratory	1	3
V.B. 318 — Pharmacology I	2	2
V.P. 333 — Protozoan, Arthropod, and Helminth Parasites	5	7
V.P. 334 — General Pathology	4	7
V.P. 350 — Epidemiology	1	1
V.C.M. 372 — Veterinary Jurisprudence	1	2
Electives[4]	1-2	Variable
Total	19-20	Approx. 26

SECOND SEMESTER

V.B. 319 — Pharmacology II	3	3
V.P. 335 — Special Pathology	4	7
V.P. 338 — Veterinary Clinical Pathology	4	7
V.P. 341 — Food Hygiene and Public Health	3	3
V.C.M. 360 — Medicine I, General Medicine	5	5
Electives[4]	1	2
Total	20-21	26

THIRD YEAR

FIRST SEMESTER

V.P. 343 — Diseases of Poultry	2	2
V.C.M. 361 — General Veterinary Surgery	4	7
V.C.M. 362[3] — Clinical and Laboratory Practice	2	6
V.C.M. 364 — Medicine II, General Medicine	4	4
V.C.M. 375 — Theriogenology	4	6
V.C.M. 376 — Veterinary Anesthesiology and Fluid Therapy	2	2
Total	18	27

SECOND SEMESTER

V.B. 320 — Toxicology	2	2
V.B. 324 — Large Animal Nutrition	2	2
and/or		
V.B. 326 — Small Animal Nutrition	1	1
V.C.M. 365 — Special Veterinary Surgery	5	10
V.C.M. 366[3] — Clinical and Laboratory Practice	2	6
V.C.M. 367 — Radiology and Radiobiology	3	4
V.C.M. 368 — Infectious Diseases and Preventive Medicine	5	5
Total	18-20	28-30

FOURTH YEAR

UNIT I (THIRTY WEEKS)[2]

V.C.M. 369 — Clinical and Laboratory Practice[3]	25	40
Electives[4]	4-7	Variable

UNIT II (NINE WEEKS)

V.C.M. 369 — Clinical and Laboratory Practice[3]	5	40
Electives[4]	1-3	Variable
Total	35-40	Variable

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[1] Only students who have been accepted for admission to the professional curriculum are eligible to begin the first year's work in the College of Veterinary Medicine.

[2] Unit I consists of seven six-week sections; the student will enroll for five of the seven sections. The other twelve weeks may be used for vacation time, for a voluntary externship with a veterinary practitioner, for a research or teaching experience, or for any other use of the student's choice.

[3] Assignments outside of regularly scheduled clinic hours are made and must be adhered to by the students involved.

[4] A total of 153 credit hours is required for graduation. Elective courses (13-14 credit hours) from a list designated by the College of Veterinary Medicine must be selected to supplement required course credits (141-142 credit hours).

[5] Duration of the course is one-half of a semester.

Appendices

Appendix A: Academic Deans and Directors of the Colleges, Schools, and Institutes

DEANS OF THE COLLEGES

John R. Campbell, Dean, College of Agriculture
Robert E. Herron, Dean, College of Applied Life Studies
John D. Hogan, Dean, College of Commerce and Business Administration
James W. Carey, Dean, College of Communications
Nancy S. Cole, Dean, College of Education
Mac E. Van Valkenburg, Dean, College of Engineering
Jack H. McKenzie, Dean, College of Fine and Applied Arts
Judith S. Liebman, Acting Dean, Graduate College
Peter H. Hay, Dean, College of Law
William F. Prokasy, Dean, College of Liberal Arts and Sciences
Charles C. O'Morchoe, Director, University of Illinois College of Medicine at Urbana-Champaign
Richard E. Dierks, Dean, College of Veterinary Medicine

DEANS AND DIRECTORS OF THE SCHOOLS AND INSTITUTES

R. Alan Forrester, Director, School of Architecture
Eugene C. Wicks, Director, School of Art and Design
Jiri Jonas, Director, School of Chemical Sciences
Leigh S. Estabrook, Dean, Graduate School of Library and Information Science
Sharon Y. Nickols, Director, School of Human Resources and Family Studies
Nina Baym, Director, School of Humanities
Samuel Kaplan, Director, School of Life Sciences
Austin J. McDowell, Director, School of Music
Daniel Sanders, Dean, School of Social Work
Henry L. Taylor, Director, Institute of Aviation
Roger A. Minear, Director, Institute for Environmental Studies
Walter H. Franke, Director, Institute of Labor and Industrial Relations

UNIVERSITY LIBRARIAN

Michael Gorman, Acting University Librarian

Appendix B: Teaching Faculty by College and Department

The following list of teaching faculty at the University of Illinois at Urbana-Champaign is given by college, department, or academic unit. Professors, associate professors, assistant professors, instructors, lecturers, adjunct professors, teaching associates, and departmental affiliates are included. Visiting, research, and emeriti professors are not included.

COLLEGE OF AGRICULTURE

Department of Agricultural Communications and Extension Education

Professors

Evans, James F.
Malone, Violet M.

Lecturers

Reisner, Ann E.
Siebrecht, Robert M.

Department of Agricultural Economics

Professors

Baker, Chester B.
Barry, Peter J.
Bock, C. Allen
Burdge, Rabel J.
Dovring, Folke
Due, Jean M.
Erickson, Duane E.
Fettig, Lyle P.
Frey, Thomas L.
Leuthold, Raymond M.
Lins, Davis A.
Roush, James R.

Schmidt, Stephen C.
Scott, John T., Jr.
Seitz, Wesley D.
Sofranko, Andrew J.
Sonka, Steven T.
Spitze, Robert G. F.
Taylor, C. Robert
Uchtmann, Donald L.
van Es, John C.

Associate Professors

Braden, John B.
Chicoine, David L.
Garcia, Philip
Grossman, Margaret R.
Johnson, Sam H.
Harms, Alfred G.
Wagner, Melvin M.

Assistant Professors

Bouzaher, Aziz
Eales, James S.
Hauser, Robert J.
Hudson, Michael A.
Johnson, Gary V.
Nelson, Charles H.
Offutt, Susan E.
Sander, William H.
Thompson, Sarahelen R.
Unnevehr, Laurian J.

Assistant Agricultural Economists

Gehrt, Dennis W.
Maybury, Kathryn A.
Nelson, Gerald C.

Department of Agricultural Engineering

Professors

Bode, Loren E.
Day, Donald L.
Drablos, Carroll J. W.
Espenschied, Roland F.
Goering, Carroll E.
Jedele, Donald G.
Lembke, Walter D.
Mitchell, J. Kent
Muehling, Arthur J.
Paulsen, Marvin R.
Pershing, Roscoe L.
Rodda, Errol D.
Shove, Gene C.
Siemens, John C.

Associate Professors

Christianson, Leslie L.
Coddington, Richard C.
Hummel, John W.
Peterson, William H.

Assistant Professors

Buck, Nelson L.
Ewing, Lloyd K.
Hirschi, Michael C.
Litchfield, J. Bruce
Reid, John F.
Riskowski, Gerald L.

Department of Agronomy

Professors

Alexander, D. Eugene
Bernard, Richard L.
Brown, Charles M.
Carmer, Samuel G.
Courson, Roger L.
de Wet, Johannes J. J.
Dudley, John W.
Endress, Anton G.
Graffis, Don W.
Griffin, Robert A.
Hadley, Henry H.
Harper, James E.
Hassett, John J.
Hesketh, John D.
Hinesly, Thomas D.
Hoeft, Robert G.
Holt, Donald A.
Hymowitz, Theodore
Jansen, Iven
Jones, Robert L.
Kapusta, George
Knake, Ellery L.
Lambert, Robert J.
Laughnan, John R.
McGlamery, Marshal D.
Miller, Darrell A.
Nickell, Cecil B.
Ogren, William L.
Oschwald, William R.
Peck, Theodore R.
Peters, Doyle B.
Plewa, Michael J.
Rinne, Robert W.
Schrader, Lawrence
Sief, Robert D.
Stevenson, Frank J.
Steffen, Dale M.
Stoller, Edward W.
Walker, William M.
Wax, Lloyd M.
Weber, Evelyn J.
Welch, L. Frederick
Widholm, Jack M.
Wilson, Curtis M.

Associate Professors

Banwart, Wayne L.
Boast, Charles W.
Cole, Michael A.
Hepburn, Angus G.
Huck, Morris G.
Kaiser, Clarence J.
Nafziger, Emerson D.
Portis, Archie R., Jr.
Patterson, Earl B.
Pepper, Gary E.
Portis, Archie R.
Stucki, Joseph W.
White, Donald G.
Woolley, Joseph T.

Assistant Professors

Baveye, Philippe
Below, Fred E.
Bicki, Thomas J.
Briskin, Donald P.
Darmody, Robert G.
Hollmyer, Steven E.
Liebl, Rex A.
Moore, Kenneth J.
Mulvaney, Richard L.
Nelson, Randal L.
Olson, Kenneth R.
Orozoo, Emil M.
Roy, William R.
Simmons, William F.
Teyker, Robert A.
Vanden Heuvel, Rich
Vasilas, Bruce L.
Wilkinson, Hank T.

Department of Animal Sciences

Professors

Bahr, Janice M.
Baker, David H.
Bechtel, Peter J.
Bryant, Marvin P.
Campbell, John R.
Clark, Jimmy H.
Cragle, Raymond G.
Curtis, Stanley E.
Dziuk, Philip J.
Fahey, George C., Jr.
Garrigus, Upson S.
Gomes, W. Reginald
Grossman, Michael
Harrison, Paul C.
Hollis, Gilbert R.
Hutjens, Michael F.
Jensen, Aldon H.
Kelley, Keith W.
Larson, Bruce L.

Lodge, J. Robert
Mistry, Sorab P.
Ricketts, Gary E.
Robinson, James L.
Spahr, Sidney L.

Associate Professors

Berger, Larry L.
Carr, Tom R.
Easter, Robert A.
Gianola, Daniel
Gonyou, Harold W.
Graves, Charles N.
Harpestad, Gerhard W.
Jaster, Edwin H.
Kesler, Darrel J.
Murphy, Michael R.
Parsons, Carl M.
Schook, Lawrence B.
Shanks, Roger D.
Thomas, David L.
Thompson, Leif H.

Assistant Professors

Czarnecki-Maulden, Gail L.
Faulkner, Dan B.
Fernando, Rohan L.
George, Philip D.
Hurley, Walter L.
Lawrence, Laurie M.
Lewin, Harris A.
McKeith, Floyd K.
McLaren, David G.
Merchen, Neal R.
Montgomery, J. Larry
Novakofski, Jan E.
Parrett, Douglas F.
White, Bryan A.

Department of Food Science

Professors

Cheryan, Munir
Erdman, John W.
Johnston, Patricia V.
Milner, John A.
Nishida, Toshiro
Perkins, Edward G.
Siedler, Arthur J.
Steinberg, Marvin P.
Visek, Willard J.
Wei, Lun-Shin
Witter, Lloyd D.

Associate Professors

Argoudelis, Christos J.
Blaschek, Hans P.
Martin, Scott E.
Villota, Ricardo

Assistant Professors

Artz, William
Baianu, Ion
Speckman, Ray

Department of Forestry

Professors

Chow, Poo
Percival, Donald H.
Rolfe, Gary L.

Associate Professors

Brown, Sandra L.
Dawson, Jeffrey O.
Gertner, George Z.

Assistant Professors

Appleby, James
Campbell, Gene
Carlson, Roger
Curtin, Theodore W.

Lecturer

Jacob, Thomas

Department of Horticulture

Professors

Carbonneau, Marvin C.
Courter, John W.
Dickinson, David B.
George, William L.
Giles, Floyd A.
Meador, Daniel B.
Nelson, William R., Jr.
Rebeiz, Constantin A.
Simons, Roy K.
Splittstoesser, Walter E.
Spomer, L. Arthur
Titus, John S.

Associate Professors

Fermanian, Thomas W.
Gerber, John M.
Meyer, Martin M., Jr.
Skirvin, Robert M.
Wehner, David J.
Williams, David J.

Assistant Professors

Juvik, John A.
Kling, Gary J.
Korban, Safi S.
Masiunas, John B.
Smith, Mary A. L.
Sullivan, Joseph G.
Swiader, John M.
Wehner, David J.

Lecturer

Noland, Dianne A.

Department of Plant Pathology

Professors

Ford, Richard E.
Himelick, Eugene B.
Jacobsen, Barry J.
Lim, Sung M.
Neely, R. Dan
Schoeneweiss, Donald F.
Shaw, Paul D.
Shurtleff, Malcolm C.
Sinclair, James B.

Associate Professors

Crane, J. Leland
D'Arcy, Cleora J.
Edwards, Dale I.
Farrand, Stephen K.
Gray, Lynn E.
Irwin, Michael E.
Jedlinski, Henry K.
Malek, Richard B.
Paxton, Jack D.
Pedersen, Wayne L.
Ries, Stephen M.
White, Donald G.

Assistant Professors

Glawe, Dean A.
Kirby, H. Walter
Melton, Thomas A.
Noel, Gregory R.
Pataky, Jerald K.
Wilkinson, Henry T.

SCHOOL OF HUMAN RESOURCES AND FAMILY STUDIES

Division of Family and Consumer Economics

Professors

Magrabi, Frances M.
Nickols, Sharon Y.

Associate Professors

Beller, Andrea H.
Hafstrom, Jeanne L.
Cude, Brenda J.

Assistant Professors

Anderson, Jacqueline H.
Fitzsimmons, Vicki R.
Paynter, MaryAnn
Sander, William H. III
Wysocki, Joseph L.

Division of Foods and Nutrition

Professors

Klein, Barbara P.
Picciano, Mary F.

Associate Professors

Khan, Mahmood A.
LaFont, Frances M.
Layman, Donald K.
Reber, Robert J.
Sherman, Adria R.

Assistant Professors

Ashbrook, Sheila B.
Keim, Kathryn S.
Keith, Mary A.
Pankau, Joseph W.
Richardson, Shelly J.
Singletary, Keith W.

Teaching Associates

Mulroy, Jeanne M.
Myers, Jane L.

Divison of Human Development and Family Ecology

Professor

Birch, Leann L.

Associate Professors

DeLoache, Judy S.
Peterson, B. Jean
Salamon, Sonya B.

Assistant Professors

Carpenter, C. Jan
Girdner, Linda K.
Hughes, Robert, Jr.
Larson, Reed
Martin, Millicent V.
Surra, Catherine A.
Todd, Christine M.

Division of Textiles, Apparel, and Interior Design

Professor

Mead, Marjorie E.

Associate Professors

Buckley, Hilda
Fisher, Nancy J.
Raheel, Mastura
Seidel, K. Virginia
Sherman, Michael P.
Sohn, Marjorie A.

Assistant Professors

Carll-White, M. Allison
Douglas, Sara U.
Leonas, Karen K.
Morganosky, Michelle
Potthoff, Joy

COLLEGE OF APPLIED LIFE STUDIES

Department of Health and Safety Studies

Professors

Armstrong, R. W.
Creswell, William H., Jr.
Herron, Robert
Imrey, Peter B.
Mortimer, Rudolf G.
O'Reilly, Lawrence B.
O'Rourke, Thomas W.
Sprague, Robert L.
Stone, Donald B.
Swartz, Harold M.

Associate Professors

Rubinson, Laurna G.
Stubing, Peter R.
Young, Charles R.

Assistant Professors

Flood, Ann Barry
Goldsteen, Raymond L.
Gorr, Alan
Macrina, David M.
Main, David M.
Pankau, Joseph
Rublee, Dale
Slavik, Nelson S.
Soboroff, Stephen

Instructors

Carey, Martha E.
Palmer, Carolyn J.

Lecturers

O'Reilly, Shirley A.
Shanesey, Mary E.
Swinford, Paula

Department of Leisure Studies

Professors

Bannon, Joseph J.
Burdge, Rabel J.
Herron, Robert E.
Kelly, John R.
Roberts, Glyn

Associate Professors

Allen, Lawrence R.
Barnett-Morris, Lynn
Brademas, D. James
Espeseth, Robert D.
Kleiber, Douglas A.
Peterson, Carol A.

Assistant Professors

Burnam, Jerry D.
Chick, Garry E.
Floyd, Janet M.
McKinney, William R.
Sneegas, Janiece
Unzicker, Carol M.

Department of Physical Education

Professors

Adrian, Marlene J.
Bloomfield, Daniel K.

Boileau, Richard A.
Cheska, Alyce T.
Herron, Robert E.
Loy, John W., Jr.
Lueschen, Guenther
Massey, Benjamin H.
Matthews, David O.
Newell, Karl M.
Roberts, Glyn C.
Thompson, Margaret M.
Wright, Rollin G.

Associate Professors

Gould, Daniel R.
Greendorfer, Susan L.
Groppel, Jack L.
Harris, Marjorie M.
Keller, Roy J.
Misner, James E., Jr.
Slaughter, Mary H.
Trekell, Marianna

Assistant Professors

Arnold, Donald E.
Bell, Gerald W.
Carlton, Les G.
Deutsch, Helga M.
Kahrs, Karol
McHugh, Mary-Margaret
Palmer, Suzanne S.

Lecturer

Gates, Margaret A.

Teaching Associates

McCreal, Kathy M.
Pollok, Ann L.
Villacorta, Aurora S.

Division of Rehabilitation–Education Services

Professors

Adrian, Marlene J.
Larsen, Joseph R.

Assistant Professors

Armstrong, M. Jocelyn
Elmer, Charles D.
Floyd, Janet M.
Hedrick, Bradley N.
Konitzki, Joseph F.

INSTITUTE OF AVIATION

Professors

Hulin, Charles L.
Ormsbee, Allen I.
Taylor, Henry L.
Wickens, Christopher

Associate Professors

Benn, Omer
Garrelts, Weldon E.

Assistant Professors

Andersen, G. John
Flach, John M.
Kramer, Arthur F.
Lintern, Gavan

Instructors

Craig, James M., Jr.
Henne, Bertrand W.
Ruelle, Robert

Professional Aviation Education Specialists

Emanuel, Tom W., Jr.
Geibel, William D.
Harshbarger, Terry L.
Ladage, Terry

Associate Aviation Education Specialists

Eizinger, Brad P.
Lehocky, Robert S.
Lendrum, Lester M.
Owen, Stephen F.
Van Proyen, Paul D.
Weinberg, Ricky A.

Assistant Aviation Education Specialists

Amborski, Donald
Davis, Thomas, Jr.
Garland, James
Hyman, Fred C.
Rosenow, John B.
Saccone, Glenn S.
Tshopp, Joanne M.
Ziegler, Charles F., Jr.

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

Department of Accountancy

Professors

Bedford, Norton M.
Boland, Richard
Brighton, Gerald D.
Fess, Philip E.
Holzer, H. Peter
Johnson, Orace E.
Kwon, Young
McKeown, James C.
Neumann, Frederick L.
Schoenfeld, Hanns-Martin
Smith, Charles H.
Willis, Eugene
Zimmerman, Vernon K.

Associate Professors

Beck, Paul
Berry, Maureen H.
Brown, Clifton E.
Chandler, John S.
Frecka, Thomas J.
Hreha, Karen
Jamison, Robert W.
Silhan, Peter
Solomon, Ira
Ziegler, Richard E.

Assistant Professors

Desmond, Nancy A.
Dilla, William N.
Greenberg, Penelope Sue
Greenberg, Ralph
Jung, Woon O.
Liang, Ting-Peng
O'Leary, Timothy
Omer, Thomas C.
Reiter, Sara
Sharp, Florence
Ziebart, David

Department of Business Administration

Professors

Blair, Charlese
Evans, Richard V.
Gardner, David M.
Hill, Richard M.
Hinomoto, Hirohide
Kindt, John W.
Murnighan, J. Keith
Negandhi, Anant R.
Oldham, Greg R.
Pondy, Louis R.
Primeaux, Walter, Jr.
Roberts, Donald M.

Rowland, Kendrith M., Jr.
Salancik, Gerald R.
Sheth, Jagdish
Sudman, Seymour
Thomas, Howard
Whetten, David A.
Winter, Frederick

Associate Professors

Black, Robert L., Jr.
Cohen, Susan
Engelbrecht-Wiggans, R.
Huff, Anne S.
Leblebici, Huseyin
Monahan, George
Porac, Joseph F.
Schwenk, Charles

Assistant Professors

Basu, Amiya K.
Buchanan, Lauranne
Duhaime, Irene M.
Hastak, Manoj
Kumar, K. Ravi
Leatherwood, Marya
Lyles, Marjorie
Ritz, Zvi
Roszkowski, Mark E.
Shaw, Michael
Simmons, Carolyn J.
Sudharshan, Devanathan
Suzuki, Norihiko
Tang, Ming-Je

Department of Economics

Professors

Arnould, Richard J.
Atack, Jeremy
Baer, Werner
Blau, Francine
Brueckner, Jan
Dubey, Pradeep
Ferber, Marianne
Frankel, Marvin
Giertz, J. Fred
Gillespie, Robert W.
Gottheil, Fred
Hartman, Paul
Heins, A. James
Hendricks, Wallace
Hodgman, Donald
Kahn, Lawrence
Khan, M. Ali
Koenker, Roger
Leuthold, Jane H.
McMahon, Walter W.
Millar, James
Mirman, Leonard
Neal, Larry
Newbold, Paul
Rashid, Salim
Resek, Robert W.
Schran, Peter
Shupp, Franklin R.
Sprenkle, Case
Taira, Koji
Turnovsky, Stephen
Uselding, Paul
Wells, Paul
Yancey, Thomas

Associate Professors

Birdzell, Ruth A.
Coes, Donald V.
De Brock, Lawrence
Grinols, Earl L.
Husby, Ralph D.
Steinkamp, Stanley
Ulen, Thomas
Williamson, H. F.

Assistant Professors

Arvan, Lanny
Bera, Anil
Esfahani, Hadi
Kolstad, Charles
Sen, Partha

Lecturers

Graziano, Paulette
Turnovsky, Michelle

Department of Finance

Professors

Bryan, William R.
Cammack, T. Emerson
Colwell, Peter F.
Follain, James R.
Gentry, James A.
Haugen, Robert A.
Lee, Cheng-Few
Linke, Charles M.

Associate Professors

Cannaday, Roger E.
Finnerty, Joseph E.
Lynge, Morgan J., Jr.
Sears, R. Stephen
Whitford, David T.
Zumwalt, J. Kenton

Assistant Professors

Chen, K. C.
D'Arcy, Stephen P.
Dokko, Yoon
Park, Hun Y.
Scott, Louis O.

COLLEGE OF COMMUNICATIONS

Department of Advertising

Professors

Rotzoll, Kim B.
White, Gordon E.

Associate Professors

Haefner, James E.
Lancaster, Kent M.
Wartella, Ellen Ann

Assistant Professors

Cobb, Cathy J.
McCarty, John
Middlestadt, Susan E.
O'Guinn, Thomas

Department of Journalism

Professors

Carey, James W.
Evans, James F.
Littlewood, Thomas B.
Peterson, Theodore B.

Associate Professors

Christians, Clifford
Hays, Robert G.
Helle, Steven J.
Reid, Robert D.
Whitney, D. Charles

Assistant Professors

Alfeld, William W.
Barnhurst, Kevin
Solomon, William
Stegeman, Richard L.
Liebovich, Louis

Lecturers

Finnegan, Terrence
Kacich, Thomas
Kazel, Mitchell S.
Mohn, G. Frederick
Paul, John
Rucker, Robert L.

Department of Radio and Television

Associate Professor

Rowland, Willard D., Jr.

Lecturer

Mullally, Donald

Institute of Communications Research

Professor

Guback, Thomas H.

Assistant Professor

Nerone, John

COLLEGE OF EDUCATION

Department of Administration, Higher, and Continuing Education

Professors

Henderson, Robert A.
House, Ernest R.

Associate Professors

Anderson, Ernest F.
Farmer, James
Fley, Jo Ann
McGreal, Thomas
Murphy, Joseph
North, Gary
Silver, Paula
Thurston, Paul

Assistant Professors

Donaldson, Joe
Kemp, John
Kozoll, Charles
Levy, Stanley R.
Lotto, Linda
Riggs, Judith
Ward, James
Wilson, Richard

Department of Educational Policy Studies

Professors

Burnett, Joe R.
Ennis, Robert H.
Feinberg, Walter
Karier, Clarence J.
Smith, Ralph A.
Troike, Rudolph
Violas, Paul C.
Yates, Barbara A.

Associate Professors

Anderson, James D.
Coombs, Fred S.
Shorish, Mobin

Assistant Professors

Page, Ralph
Tozer, Steven
Trent, William

Department of Educational Psychology

Professors

Ames, Russell
Anderson, Richard C.
Asher, Steven R.
Braskamp, Larry A.
Brown, Ann (Campione)
Cole, Nancy S.
Goulet, Larry R.
Harmon, Lenore W.
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Appendix C: Course Abbreviations Used in Curricular Listings

Accy.	Accountancy
A.H.C.E.	Administration, higher, and continuing education
Adv.	Advertising
A.A.E.	Aeronautical and astronautical engineering
Afr. St.	African studies
Ag. Com.	Agricultural communications
Ag. Ec.	Agricultural economics
Ag. E.	Agricultural engineering
Ag. M.	Agricultural mechanization
Agr.	Agriculture
Agron.	Agronomy
A.F.A.S.	Air Force aerospace studies
Anat.	Anatomical sciences
An. S.	Animal science
Anth.	Anthropology
Arab.	Arabic
Arch.	Architecture
Art & D.	Art and design, introduction
Art Hi.	Art history
Art G.P.	Art and design, general professional
Art Ed.	Art education
Art Ci.	Cinematography
Art Cr.	Crafts
Art G.D.	Graphic design
Art I.D.	Industrial design
Art Pa.	Painting
Art Ph.	Photography
Art Pr.	Printmaking
Art Sc.	Sculpture
As. St.	Asian studies
Astr.	Astronomy
Atmos.	Atmospheric sciences
Avi.	Aviation
Bands	Bands
Bioch.	Biochemistry
Bioen.	Bioengineering
Biol.	Biology
Bioph.	Biophysics
Bus.	Business
B. Adm.	Business administration
B.&T.W.	Business and technical writing
Catal.	Catalan
Cer. E.	Ceramic engineering
Ch. E.	Chemical engineering
Chem.	Chemistry

Chin.	Chinese
C.E.	Civil engineering
Cl. Arc.	Classic archaeology
Cl. Civ.	Classical civilization
Comm.	Communications
C. Lit.	Comparative literature
C.S.	Computer science
Cop.	Coptic
Czech.	Czech
D.S.	Dairy science
Dance	Dance
E.E.E.	Ecology, ethology, and evolution
Econ.	Economics
Educ.	Education
Ed. Pr.	Educational practice
Ed. Psy.	Educational psychology
E.E.	Electrical engineering
El. Ed.	Elementary education
Eng.	Engineering
Eng. H.	Engineering honors
E.P.S.	Educational policy studies
E.S.L.	English as a second language
Engl.	English literature and American literature
Entom.	Entomology
Env. St.	Environmental studies
F.A.C.E.	Family and consumer economics
Fin.	Finance
F.A.A.	Fine and applied arts
F.N.	Foods and nutrition
F.S.	Food science
For.	Forestry
Fr.	French
G.E.	General engineering
Geog.	Geography
Geol.	Geology
Ger.	German
Gmc.	Germanic
Grk.	Greek
H.S.S.	Health and safety studies
Hebr.	Hebrew
Hindi	Hindi
Hist.	History
Hort.	Horticulture
H.D.F.E.	Human development and family ecology
Human.	Humanities
H.R.F.S.	Human resources and family studies
I.E.	Industrial engineering
I.D.	Interior design
Ital.	Italian
Japan.	Japanese
Journ.	Journalism
Korea.	Korean
L.I.R.	Labor and industrial relations
L.A.	Landscape architecture
Lat.	Latin
LAS	Liberal arts and sciences
L.A. St.	Latin American studies program
Law	Law
Law So.	Law and society
Lei. St.	Leisure studies
Lib. S.	Library science
Ling.	Linguistics
Math.	Mathematics
M.E.	Mechanical engineering
Med. S.	Medical sciences
Met. E.	Metallurgical engineering
Mcbio.	Microbiology
Mil. S.	Military science
Min. E.	Mining engineering
M. Grk.	Modern Greek
M. Hbr.	Modern Hebrew
Music	Music
N.S.	Naval science
Nuc. E.	Nuclear engineering
Nutr. S.	Nutritional sciences
O.T.	Occupational therapy
Pers.	Persian
Phil.	Philosophy
P.E.	Physical education
Phycs.	Physics
Physl.	Physiology
Pl. Bio.	Plant biology
Pl. Pa.	Plant pathology
Pol.	Polish
Pol. S.	Political science
Port.	Portuguese
Psych.	Psychology
R. TV	Radio and television
Rel. St.	Religious studies
Rhet.	Rhetoric and composition
Ruman.	Rumanian
R. Soc.	Rural scoiology
Russ.	Russian
S. Ed.	Safety education
Sansk.	Sanskrit
Scan.	Scandinavian
S.T.S.	Science, technology, and society
Se. Ed.	Secondary education
S. Cr.	Serbo-Croatian
Slav.	Slavic
Soc. S.	Social sciences
Soc. W.	Social work
Soc.	Sociology
Span.	Spanish
Sp. Com.	Speech communication
Sp. Ed.	Special education
Sp. H.S.	Speech and hearing science
Stat.	Statistics

Swhli.	Swahili
T.C.	Textiles and clothing
Theat.	Theatre
T.A.M.	Theoretical and applied mechanics
Ukr.	Ukrainian
U.P.	Urban and regional planning
V.B.	Veterinary biosciences
V.C.M.	Veterinary clinical medicine
V.P.	Veterinary pathobiology
Vo. Tec.	Vocational and technical education
W.S.	Women's studies
Yruba.	Yoruba
Zool.	Zoology

Appendix D: University of Illinois Regulations Governing the Determination of Residency Status for Admission and Assessment of Student Tuition

March 1984

For the purpose of these regulations, an "adult" is considered to be a student eighteen years of age or over; a "minor" student is a student under eighteen years of age. The term "the State" means the State of Illinois. Except for those exceptions clearly indicated in these regulations, in all cases where records establish that the person does not meet the requirements for resident status as defined in these regulations the Nonresident status shall be assigned.

1. Residency Determination
   Evidence for determination of residence status of each applicant for admission to the University shall be submitted to the Director of Admissions and Records at the time of application for admission. A student may be reclassified at any time by the University upon the basis of additional or changed information. However, if the student is classified in error as a Resident student, the change in tuition shall be applicable beginning with the term following the reclassification; if the student is classified in error as a Nonresident, the change in tuition shall be applicable to the term in which the reclassification occurs, provided the student has filed a written request for a review in accordance with these regulations.
2. Adult Student
   An adult, to be considered a Resident for purposes of admission, must have been a bona fide resident of the State for a period of at least six consecutive months immediately preceding the date of receipt of the application for admission. An adult, to be considered a Resident for purposes of assessment of student tuition, must have been a bona fide resident of the State for a period of at least six consecutive months immediately preceding the beginning of any term for which the adult registers at the University, and must continue to maintain a bona fide residency in the State. An adult whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a Resident applicant or student.
3. Minor Student
   The residence of a minor shall be considered to be, and to change with and follow:
   a. That of the parents, if they are living together, or living parent, if one is dead; or
   b. If the parents are separated or divorced, that of the parent to whom the custody of the person has been awarded by court decree or order, or, in the absence of a court decree or order, that of the father unless the person has continuously resided with the mother for a period of at least six consecutive months immediately preceding registration at the University, in which latter event the residence shall be considered to be that of the mother; or
   c. That of the adoptive parents, if the person has been legally adopted and, in the event the adoptive parents become divorced or separated, that of the adoptive parent whose residence would govern under the foregoing rules if that parent had been a natural parent; or

d. That of the legally appointed guardian of the person; or
e. That of a "natural" guardian, such as a grandparent, adult brother or adult sister, adult uncle or aunt, or other adult with whom the person has resided and has been supported by for a period of at least six consecutive months immediately preceding registration at the University for any term if the person's parents are dead or the person has been abandoned and if no legal guardian of the person has been appointed and qualified.

4. Parent or Guardian
Except as provided in paragraph 10 of these Regulations, no parent or legal or natural guardian will be considered a resident of the State unless that person (a) maintains a bona fide and permanent place of abode within the State, and (b) lives, except when temporarily absent from the State with no intention of changing legal residence to some other state or country, within the State.

5. Emancipated Minor
A minor who has been emancipated, is completely self-supporting, and actually resides in the State shall be considered to be a Resident even though the parents or guardian may reside outside the State. An emancipated minor who is completely self-supporting shall be considered to "actually reside in the State of Illinois" if the minor has maintained a dwelling place within the State uninterruptedly for a period of at least six consecutive months immediately preceding the beginning of any term for which the minor registers at the University. Marriage or active military service shall be regarded as effecting the emancipation of minors, whether male or female, for the purposes of this regulation. An emancipated minor whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a Resident student.

6. Persons Without United States Citizenship
A person who is not a citizen of the United States of America, to be considered a resident must have permanent resident, refugee, asylum, parolee, or G-4 visa status, with the United States Immigration and Naturalization Service, and must also meet and comply with all of the other applicable requirements of these regulations to establish resident status.

To the extent that federal law enables persons with visas in categories A, E, G, I, or L to establish an Illinois residence for tuition purposes, such persons shall be deemed to be in the same category as a person who has G-4 visa status.

7. Married Student
A nonresident student who is a citizen of the United States of America or who holds permanent resident, refugee, asylum, parolee, or G-4 visa status with the United States Immigration and Naturalization Service, whether male or female, or a minor or adult, who is married to a person who meets and complies with all of the applicable requirements of these regulations to establish resident status shall be classified as a resident.

To the extent that federal law enables persons with visas in categories A, E, G, I, or L to establish an Illinois residence for tuition purposes, such persons shall be deemed to be in the same category as a person who has G-4 visa status.

8. Armed Forces Personnel
A person who is actively serving in one of the Armed Forces of the United States and who is stationed and present in the State in connection with that service and submits evidence of such service and station, and the person's spouse and dependent children, shall receive waiver of the Nonresident portion of tuition as long as the person remains stationed and present in Illinois and the spouse or dependent children also live in the State.

9. Minor Children of Parents Transferred Outside the United States
The minor children of persons who have resided in the State for at least six consecutive months immediately prior to a transfer by their employers to some location outside the United States shall be considered Residents. However, this shall apply only when the minor children of such parents enroll in the University within five years from the time their parents are transferred by their employer to some location outside the United States.

10. Staff Members of the University and of Allied Agencies, and Faculties of State-Supported Institutions of Higher Education in Illinois
    Staff members of the University and of allied agencies, and faculties of state-supported institutions of higher education in Illinois, holding appointment of at least one-quarter time, and their spouses and dependent children, shall be treated as Residents.
11. Teachers in Private and Public Schools in Illinois
    Teachers in the private and public elementary and secondary schools in Illinois shall, if subject to the payment of tuition, be assessed at the Resident rate during the term in which the staff member or teacher holds such an appointment at least one-quarter time. This privilege also extends to the summer session or off-quarter vacation immediately following the term for which such appointment was effective. Any Nonresident student who qualifies for Resident tuition by reason of an appointment described in 10 or 11 above shall become subject to Nonresident tuition for the entire term if the appointment qualifying the student for the Resident benefit is vacated prior to completion of three-fourths of the term in question. Resignation or cancellation of the appointment prior to the close of the spring term also cancels the eligibility for the Resident tuition privilege in the following summer or Off-Quarter Vacation Term.
12. Definition of Terminology
    To the extent that the terms "bona fide residence," "independent," "dependent," and "emancipation" are not defined in these regulations, definitions shall be determined by according due consideration to all of the facts pertinent and material to the question and to the applicable laws and court decisions of the State of Illinois.

    Voter registration, filing of taxes, proper license and registration for the driving or ownership of a vehicle, and other such transactions may verify intent of residency in a state. Neither length of University attendance nor continued presence in the University community during vacation period shall be construed to be proof of Illinois residence.

    The term "staff member" as used in these regulations shall mean a person appointed to an established position for a specific amount of time at a salary commensurate with the percentage of time required, under an appointment requiring service for not less than three-fourths of the term. The term "staff member" as defined herein shall not apply to persons employed on an hourly basis in either an academic or nonacademic capacity, nor to persons on leave without pay. Persons appointed to established Civil Service positions whose rate of pay is determined by negotiation or prevailing rates shall not be considered as being paid on an hourly basis.
13. Procedure for Review of Residency Status and/or Tuition Assessment
    A student who takes exception to the residency status assigned and/or tuition assessed shall pay the tuition assessed but may file a claim in writing to the Director of Admissions and Records for a reconsideration of residency status and/or an adjustment of the tuition assessed. For purposes of admission, the written claim must be filed within twenty calendar days from the date of notification of residency status. For purposes of assessment of tuition, the written claim must be filed within twenty days of the date of assessment of tuition or the date designated in the official University calendar as that upon which instruction begins for the academic period for which the tuition is payable, whichever is later. Students who file after the twenty-day period lose all rights to a change of status and/or adjustment of the tuition assessed for the term in question. If the student is dissatisfied with the ruling in response to the written claim made within said period, the student may appeal the ruling to the University Counsel by filing with the Director of Admissions and Records within twenty days of the notice of the ruling a written request. If such a written request is filed within said period, the question of residency status under the provisions of these regulations and of applicable laws shall be referred by the Director of Admissions and Records through the Campus Legal Counsel to the University Counsel, whose decision shall be final.

These regulations shall remain in full force and effect unless and until subsequently amended or repealed by action of the Board of Trustees.

Further information of clarification may be secured by contacting the Director of Admissions and Records on the campus concerned:

University of Illinois at Urbana-Champaign
10 Administration Building
506 South Wright Street
Urbana, Illinois 61801

University of Illinois at Chicago
P.O. Box 4348
Chicago, Illinois 60680

University of Illinois at Chicago
Health Sciences Center
P.O. Box 6998
Chicago, Illinois 60680

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FINANCIAL ASSISTANCE: Student Financial Aids, University of Illinois at Urbana-Champaign, 400 Turner Student Services Building, 610 East John Street, Champaign, IL 61820; (217) 333-0100.

SCHOLARSHIP, AWARD, AND FELLOWSHIP INFORMATION; HONORS PROGRAMS; PUBLICATIONS OF COLLEGES, SCHOOLS, AND OTHER URBANA-CHAMPAIGN CAMPUS UNITS: Appropriate college, school, or unit; address in each college's or unit's section.

HOUSING: Housing Information, University of Illinois at Urbana-Champaign, 2 Turner Student Services Building, 610 East John Street, Champaign, IL 61820; (217) 333-1420.

MOTOR VEHICLE AND BICYCLE REGISTRATION: Campus Parking, University of Illinois at Urbana-Champaign, 505 East Green Street, Champaign, IL 61820; (217) 333-3530.

PERMANENTLY PHYSICALLY HANDICAPPED STUDENT SERVICES: Rehabilitation Education Services, University of Illinois at Urbana-Champaign, 1207 South Oak Street, Champaign, IL 61820; (217) 333-4602.

STUDENT ASSISTANCE: Student Assistance Center, 107 Turner Student Services Building, 610 East John Street, Champaign, IL 61820; (217) 333-4636.

CAMPUS LIFE AND STUDENT WELFARE: Dean of Students, University of Illinois at Urbana-Champaign, 130 Turner Student Services Building, 610 East John Street, Champaign, IL 61820; (217) 333-0050.

VETERANS' EDUCATIONAL BENEFITS: Veterans Educational Benefits, University of Illinois at Urbana-Champaign, 420 Turner Student Services Building, 610 East John Street, Champaign, IL 61820; (217) 333-0100.

OTHER INFORMATION: Office of Public Affairs, Swanlund Administration Building, 601 East John Street, Champaign, IL 61820; (217) 333-5010.

CHICAGO CAMPUS: Admissions and Records, University of Illinois at Chicago, P.O. Box 4348, Chicago, IL 60680; (312) 996-4377. Admissions, Health Sciences, P.O. Box 6998, Chicago, IL 60680; (312) 996-7690.

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